



ALAWAA

Gem

# MATHEMATICS



2023

Primary

2

Second Term



# Chapter

# 1



## Pacing Guide

### Lesson (61): Money

#### Outcomes:

- Differentiate between Egyptian banknotes (L.E. 1, 5, 10, 20, 50, 100)
- Estimate the value of different items.

### Lesson (62): Decomposing and combining banknotes

#### Outcomes:

- Combine L.E. (5, 10, 20, 50, 100) notes to create a given total.
- Decompose large denominations of money into smaller denomination.

### Lesson (63): Combination of banknotes using different ways

#### Outcomes:

- Discuss different ways to combine banknotes to create a given total.

### Lesson (64): Combining banknotes

#### Outcomes:

- Combine banknotes using 120 chart to create a given total of money.

### Lesson (65): How to spend money

#### Outcomes:

- Use the budget to spend money.

### Lesson (66):

#### (A) Addition money story problems

#### Outcomes:

- Solve one step addition story problems involving money

#### (B) Subtraction money story problems

#### Outcomes:

- Solve one step subtraction story problems involving money.

### Lesson (67): The place value Money mat

#### Outcomes:

- Apply place value money mat concepts to represent money.

### Lesson (68):

#### (A) Adding amounts of money without regrouping

#### Outcomes:

- Add amounts of money without regrouping using money mat.

#### (B) Adding amounts of money with regrouping ones

#### Outcomes:

- Add 2 and 3-digit numbers with regrouping ones using money mat.

#### (C) Adding amounts of money with regrouping tens

#### Outcomes:

- Add 2 and 3-digit numbers with regrouping tens using money mat.

### Lesson (69):

#### (A) Subtracting amounts of money without regrouping

#### Outcomes:

- Subtract 2 and 3-digit numbers without regrouping.

#### (B) Subtracting amounts of money with regrouping tens

#### Outcomes:

- Subtract 2 and 3-digit numbers with regrouping.

#### (C) Subtracting amounts of money with regrouping hundreds

#### Outcomes:

- Subtract 2 and 3-digit numbers with regrouping hundreds.

### Lesson (70): Addition and subtraction money story problems with regrouping

#### Outcomes:

- Solve addition and subtraction money story problems.

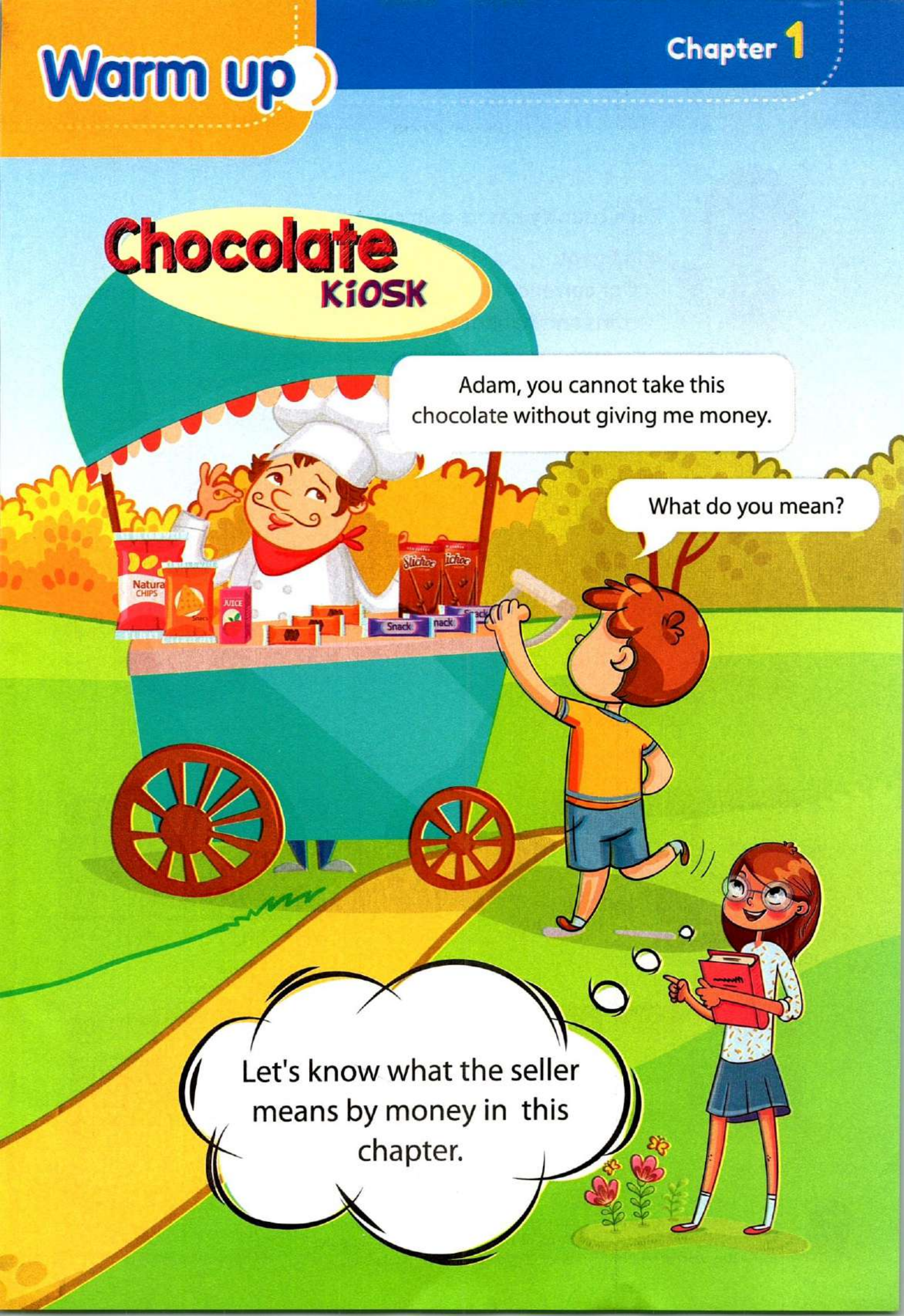


### Chocolate Kiosk

Adam, you cannot take this chocolate without giving me money.

What do you mean?

Let's know what the seller means by money in this chapter.





# Lesson 61

# Money



Each country has its own currency:

● **In Egypt:**

Our currency is Egyptian pound, it takes the two forms coins and banknotes.



1 Pound

L.E. 1



5 Pounds

L.E. 5



10 Pounds

L.E. 10



## Daily Practice:

- Help your child draw a circle around the first day at school on the calendar.
- Ask your child to write the name of the current day and its date.

**Key words:** Money - Currency - Egyptian pound - Banknotes.







20 Pounds  
L.E. 20



50 Pounds  
L.E. 50



100 Pounds  
L.E. 100



200 Pounds  
L.E. 200



- ✦ L.E. represents (Egyptian pound)
- ✦ L.E. before each number tells that the number is money.



#### Parents' Tips:

- Explain to your child that before using money people used items as (food, cloth or farm animals) to exchange between them but nowadays we use money to get everything we need.



## Activity

1

Match the value with its banknote picture:

## Example



L.E. 50

a



L.E. 20

b



L.E. 10

c



L.E. 100

d



L.E. 1

e



L.E. 200

f



L.E. 5

## Parents' Tips:

- Help your child learn the value of each banknote.



## Activity

2

Use the given prices to estimate the cost of each object:  
(You can use each price more than one time.)

L.E. 1

L.E. 20

L.E. 5

L.E. 200

L.E. 10

L.E. 50

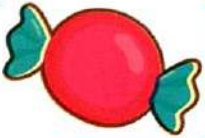
L.E. 100

Example



L.E. 100

a



b



c



d



e



f



g



h



i



## Parents' Tips:

- Encourage your child to estimate the price of different objects around him/her.
- Ensure that your child can use the banknotes in daily life.





















**Key words:** Estimate



## Activity

3

Estimate, then circle what you can buy with the given money:

a				
b				
c				
d				
e				



## I learned

- The value of each Egyptian banknote.



- How to estimate the cost of different items.



# Decomposing and Combining banknotes

## Decomposing banknotes

It means that we can use a denomination of:

a large banknote

to get

a set of small banknotes

We can show L.E. 50 using:



5 notes of L.E. 10  
10 notes of L.E. 5



## Combining banknotes

It means that we can use:

a set of small banknotes

to get

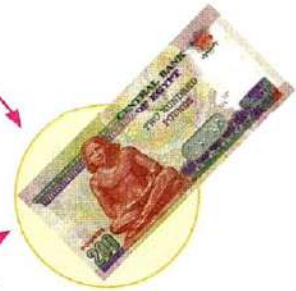
a denomination of a large banknote



We combine 2 notes of L.E. 100 to represent



We combine 1 note of L.E. 100 and 2 notes of L.E. 50 to represent



Notice that:

- We can use more than one way to decompose or combine banknotes.

### Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around the day he/she spent in school.
- Ask your child to tell you today's date.

**Key words:** Decompose - Combine



## Activity

1

Complete, then match each set of money with its equal value of banknote:

## Example



L.E. \_\_\_\_\_ + L.E. \_\_\_\_\_

a



L.E. \_\_\_\_\_ + L.E. \_\_\_\_\_



b



L.E. \_\_\_\_\_ + L.E. \_\_\_\_\_

c



L.E. \_\_\_\_\_ + L.E. \_\_\_\_\_ + L.E. \_\_\_\_\_



L.E. 5 + L.E. 5

d



e



L.E. \_\_\_\_\_ + L.E. \_\_\_\_\_ + L.E. \_\_\_\_\_ + L.E. \_\_\_\_\_ + L.E. \_\_\_\_\_



## Parents' Tips:

- Encourage your child to recognize the equal amounts of money.



Activity

2

Make a combination of banknotes to get the price of each object:

Example

L.E. 20 + L.E. 10 + L.E. 10 + L.E. 10 = L.E. 50



a

L.E. + L.E. + L.E. + L.E.



L.E. 25

b

L.E. + L.E. + L.E. + L.E.



L.E. 200

c

L.E. + L.E. + L.E.



L.E. 20

d

L.E. + L.E. + L.E. + L.E.



L.E. 100

e

L.E. + L.E. + L.E. + L.E. + L.E.



L.E. 5

Parents' Tips:

- Encourage your child to know the combination of some prices.

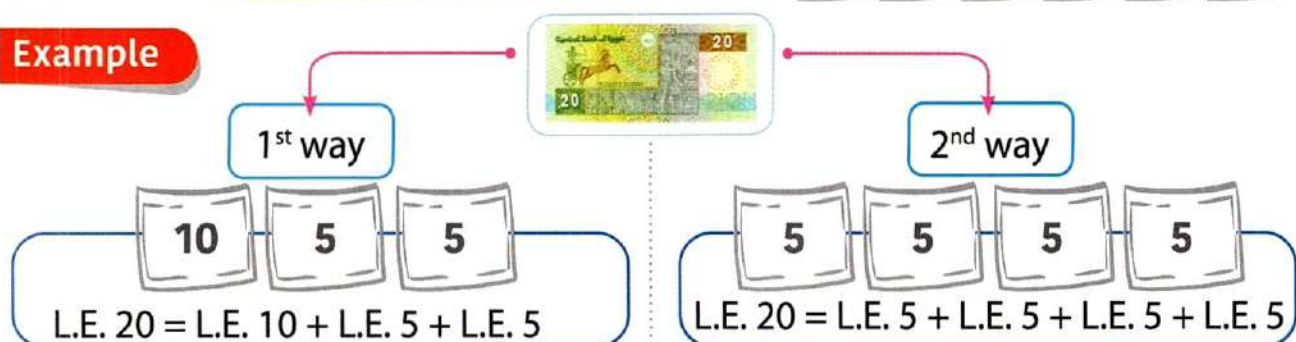
Key words: Price



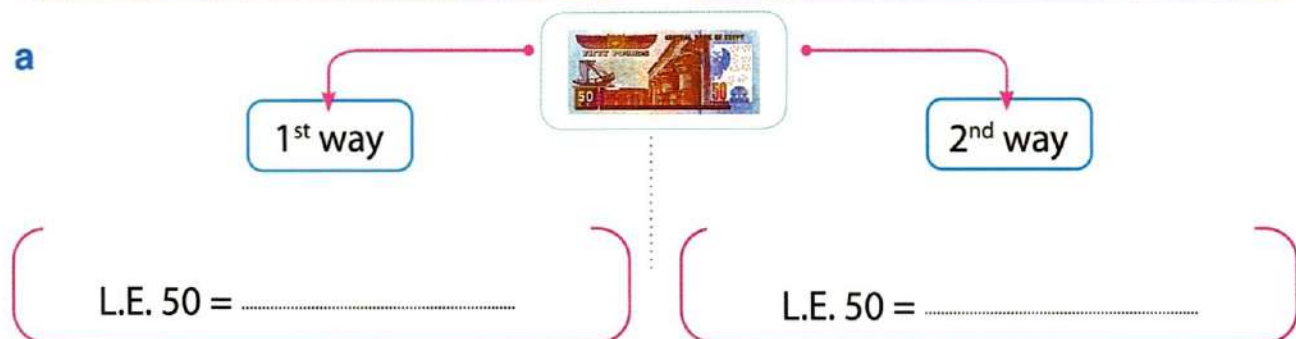
## Activity 3

Draw to show 2 different ways to decompose each of the following banknotes using: 1 5 10 20 50 100

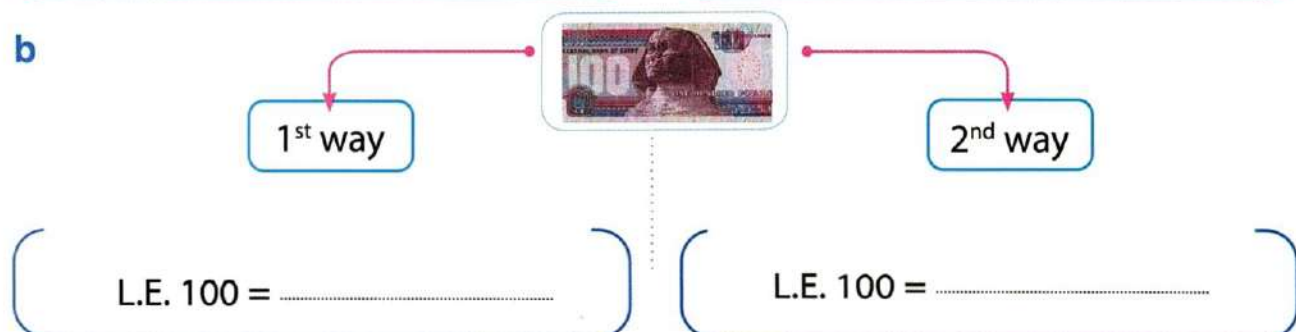
## Example



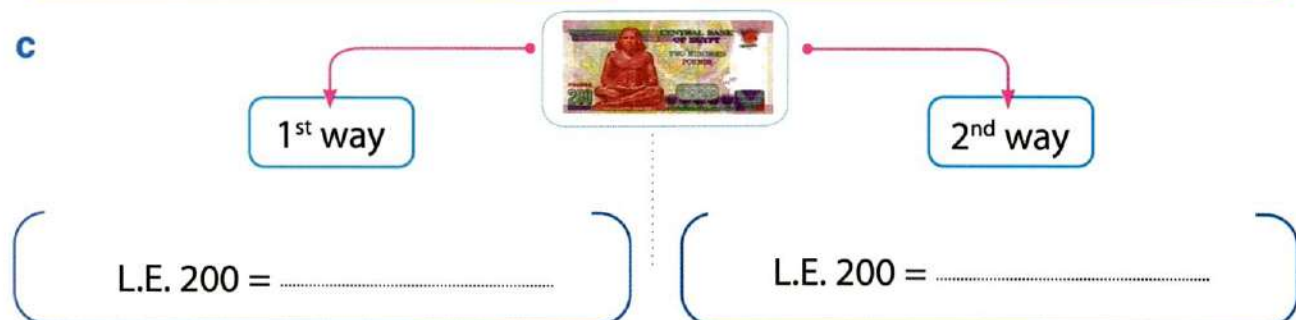
a



b



c



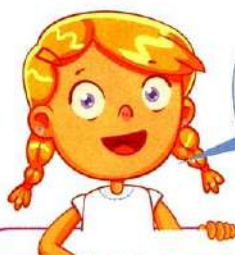
## I learned

- The difference between decomposing and combining banknotes.





# Combination of banknotes using different ways



I have L.E. 136.  
I can buy the plane.



I have L.E. 136.  
I can buy the plane.



L.E. 136



I have L.E. 136.  
I can buy the plane.



I have L.E. 136.  
I can buy the plane.



## Daily Practice:

- Encourage your child to look at the number chart and ask him/her to draw a circle around the date of today, then ask him/her to tell you the name of the current month.

**Key words:** Combination



## Activity

1

Circle the combination of banknotes that can be used to purchase each item:

a



L.E. 430



b



L.E. 208



c



L.E. 37



d



L.E. 124



## Parents' Tips:

- Invite your child to make a combination of some banknotes for buying some objects.

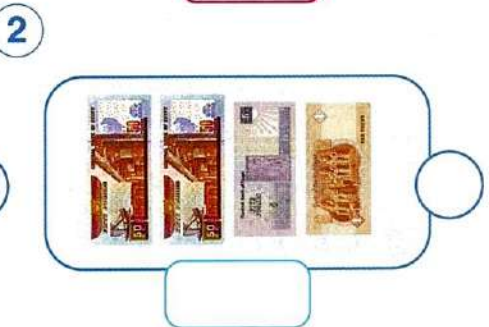
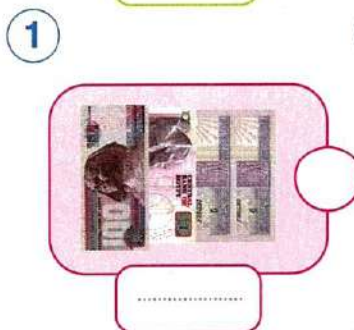
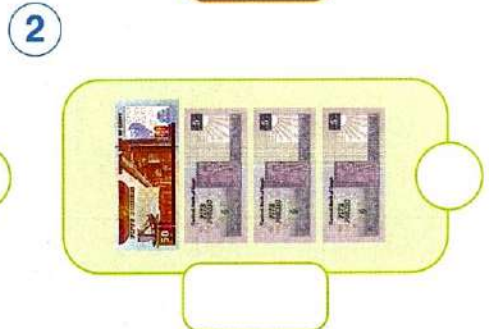
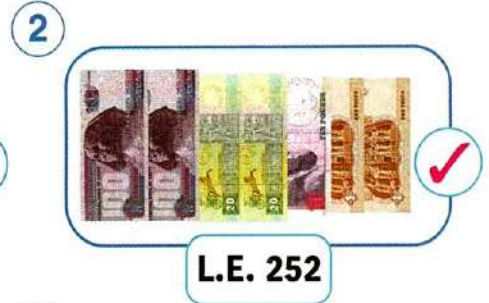


Activity

2

Write the combination of money, then tick (✓) the equal amount in each row:

Example



Parents' Tips:

- Help your child recognize the equal amounts of money.
- Encourage your child to know how to use combination in daily life.

































































**Key words:** Equal amount



## Activity

3

Color to make an equal combination of money:

<b>Example</b> L.E. 76	       
<b>a</b> L.E. 70	       
<b>b</b> L.E. 47	       
<b>c</b> L.E. 66	       
<b>d</b> L.E. 32	       
<b>e</b> L.E. 51	       
<b>f</b> L.E. 27	       
<b>g</b> L.E. 11	       

## Parents' Tips:

- Ensure that your child can form equal amounts of money.

**Key words:** Equal combination



Activity

4

Answer the following questions to make the combination of banknotes used to buy each item:



L.E. 5



L.E. 100



L.E. 5



L.E. 80



L.E. 20



L.E. 15

Example

Show the same amount of L.E. 80 using L.E. 20 notes.



$$\text{L.E. } 80 = \text{L.E. } 20 + \text{L.E. } 20 + \text{L.E. } 20 + \text{L.E. } 20$$

L.E. 80

- a Show the same amount of L.E. 5 using L.E. 1 notes.



$$\text{L.E. } 5 =$$

L.E. 5

- b Show the same amount of L.E. 15 using L.E. 5 notes.



$$\text{L.E. } 15 =$$

L.E. 15

- c Show the same amount of L.E. 20 using L.E. 10 notes.



$$\text{L.E. } 20 =$$

L.E. 20

- d Show the same amount of L.E. 10 using L.E. 5 notes.



$$\text{L.E. } 10 =$$

L.E. 10

- e Show the same amount of L.E. 100 using L.E. 50 notes.



$$\text{L.E. } 100 =$$

L.E. 100



I learned

- How to combine banknotes using different ways.
- How to use banknotes to create an equal amounts of money.





# Combining banknotes



To find the total amount of money, you can use the 120 chart:



.. Number chart up to 120 ..

	1	2	3	4	5	6	7	8	9	10
10	11	12	13	14	15	16	17	18	19	20
20	21	22	23	24	25	26	27	28	29	30
30	31	32	33	34	35	36	37	38	39	40
40	41	42	43	44	45	46	47	48	49	50
50	51	52	53	54	55	56	57	58	59	60
60	61	62	63	64	65	66	67	68	69	70
70	71	72	73	74	75	76	77	78	79	80
80	81	82	83	84	85	86	87	88	89	90
90	91	92	93	94	95	96	97	98	99	100
100	101	102	103	104	105	106	107	108	109	110
110	111	112	113	114	115	116	117	118	119	120

## First

Start with the greater banknote 20, then go three rows down and count by 10

(20, 30, 40, 50)

## Second

Start from 50, then move forward and go right while counting by 1

(51, 52, 53, 54, 55)

## Third

L.E. 50 + L.E. 5 = L.E. 55

- When we count by 1, we move forward 1 place each time.
- When we count by 10, we simply move down one row each time.

## Daily Practice:

- Help your child draw a circle around today's date on the calendar.
- Ask your child to write the name of the current day and its date.
- Ask your child to count the number of girls and boys in his/her class and help him/her to color each number in the number chart.

**Key words:** Count by 10 - Move down - 120 chart - Count by 1 - Move forward



**Activity 1** Use the 120 chart to combine money, then match:

**Example**



○ **L.E. 120**

**a**



○ **L.E. 95**

**b**



○ **L.E. 64**

**c**



○ **L.E. 124**

**d**



○ **L.E. 106**

**Parents' Tips:**

- Encourage your child to use the 120 chart for adding the total amounts of money.



## Activity

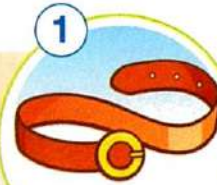
2

Tick (✓) the object you can buy according to the money you have each time:

## Example



I have L.E. 30



L.E. 35

☐


L.E. 26

☒

a



I have .....



L.E. 16

☐


L.E. 25

☐

b



I have .....



L.E. 40

☐


L.E. 90

☐

c



I have .....



L.E. 55

☐


L.E. 75

☐

d



I have .....



L.E. 150

☐


L.E. 50

☐

## Parents' Tips:

• Help your child know how to use combination of banknotes in daily life.

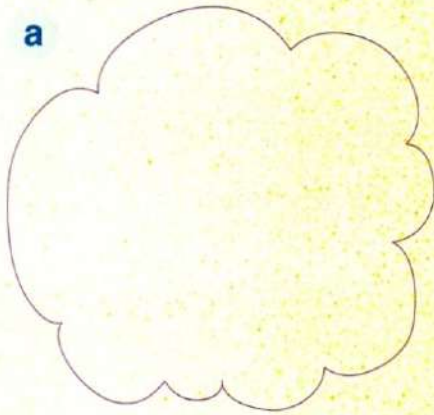


## Activity

3

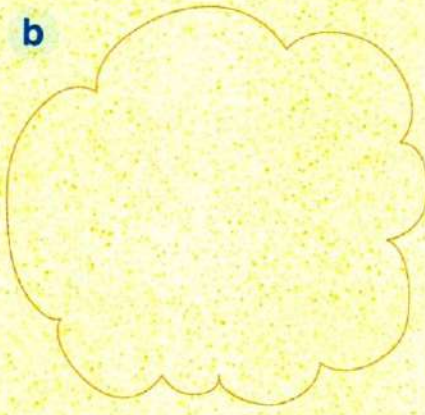
Draw to show the combination of banknotes to create the total amount:

a



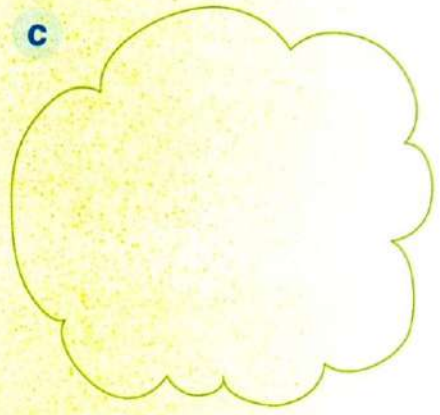
L.E. 30

b



L.E. 18

c



L.E. 240

## Activity

4

Combine to find the total amount of money:

## Example

$$\text{L.E. } 20 + \text{L.E. } 10 + \text{L.E. } 1 + \text{L.E. } 1 + \text{L.E. } 1$$

=

L.E. 33

a

$$\text{L.E. } 50 + \text{L.E. } 20 + \text{L.E. } 5 + \text{L.E. } 5$$

=

L.E. ....

b

$$\text{L.E. } 100 + \text{L.E. } 20 + \text{L.E. } 20 + \text{L.E. } 20$$

=

L.E. ....

c

$$\text{L.E. } 200 + \text{L.E. } 100 + \text{L.E. } 100 + \text{L.E. } 10$$

=

L.E. ....

d

$$\text{L.E. } 200 + \text{L.E. } 50 + \text{L.E. } 50$$

=

L.E. ....

e

$$\text{L.E. } 100 + \text{L.E. } 100 + \text{L.E. } 200$$

=

L.E. ....

## Parents' Tips:

- Ensure that your child learn the combination of banknotes.



## Activity

5

Complete the combination of money which children need to buy each item in the store:

a



L.E. 15

L.E. 5 , L.E. .... , L.E. ....

b



L.E. 30

L.E. .... , L.E. 10 , L.E. ....

c



L.E. 61

L.E. 50 , L.E. .... , L.E. ....

d



L.E. 115

L.E. 100 , L.E. .... , L.E. ....

e



L.E. 42

L.E. 20 , L.E. .... , L.E. .... , L.E. ....

f



L.E. 56

L.E. 50 , L.E. .... , L.E. ....



## I learned

- How to use 120 chart to combine banknotes.
- How to use banknotes to create equal amounts of money.





# How to spend money



Yassin had a budget of L.E. 400 to spend at the toy shop.



L.E. 120



L.E. 100



L.E. 50



L.E. 60



L.E. 70



L.E. 350



L.E. 80



L.E. 90



L.E. 95



How could Yassin be sure that he doesn't get over his budget (L.E. 400)?



**Remember:**

Budget means a plan for how much you can spend (Spending Limit).

## Daily Practice:

- Encourage your child to look at the number chart and ask him/her to draw a circle around the days he/she spent in school, then ask him/her to tell you the name of the day and the name of the month.

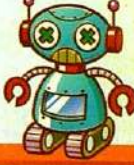




**Key words:** Budget - Spend money



## Activity

1

Look at the previous picture, then complete to help Yassin buy toys without exceeding his budget (L.E. 400):

Item	Price	If he can buy, tick (✓). If he can't buy, tick (X).	The rest of the budget
<b>Example</b> 	L.E. 100	(✓) still in the budget because $L.E. 100 < L.E. 400$	$L.E. 400 - L.E. 100 = L.E. 300$
<b>Example</b> 	L.E. 350	(X) out of the budget because $L.E. 350 > L.E. 300$	Still L.E. 300
<b>a</b> 	.....	..... .....	..... = .....
<b>b</b> 	.....	..... .....	..... = .....
<b>c</b> 	.....	..... .....	..... = .....
Yassin has L.E. .... left from his budget.			

## Parents' Tips:

- Encourage your child to learn how to calculate the total price of some objects and help him/her learn the meaning of the budget.

**Key words:** The rest of budget



## Activity

2

Circle the two items that Sara can buy according to her budget:



L.E. 5



L.E. 10



L.E. 15



L.E. 5



L.E. 7



L.E. 95



L.E. 45



L.E. 85



L.E. 65



L.E. 8



L.E. 5

- a** My budget for breakfast is **L.E. 50**. Circle the 2 items I can buy.

1



L.E. 45

2



L.E. 5

3



L.E. 85

- b** My budget for lunch is **L.E. 100**. Circle the 2 items I can buy.

1



L.E. 85

2



L.E. 95

3



L.E. 15

- c** My budget for dinner is **L.E. 75**. Circle the 2 items I can buy.

1



L.E. 10

2



L.E. 65

3



L.E. 85

## Parents' Tips:

- Encourage your child to calculate the total amounts of money used for buying some objects.

**Key words:** Rest of budget



## Activity

3

Color Yes (😊) or No (😞) according to the budget of each kid:



L.E. 50



L.E. 30



L.E. 25



L.E. 10



L.E. 5

a



and



..... + ..... = L.E. ....



b



and



..... + ..... = L.E. ....



c



and



..... + ..... = L.E. ....



## I learned

- The meaning of the budget of money.
- How to use a budget of money to buy some objects.







To solve the story problem, we have to figure out whether we should add or subtract.



## Addition story problems



Ahmed and Mai went to the clothes store.

Ahmed bought a T-shirt for L.E. 52 and Mai bought a skirt for L.E. 46.

**How much money did they pay all together?**

They paid = L.E. 52 + L.E. 46 = L.E. 98



We need to **add** when we found the words:

- All together
- Have in all
- Both have
- Total sum

**Second:** Add the tens place.

**First:** Start adding with ones place.

Tens	Ones
5 4	2 6
9	8

### Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to tell you the name of today and the name of the day before and the day after.

**Key words:** Story problem - All together - Have in all - Both have - Total sum



## Activity

1

Read, think then solve:

- a Sally saved L.E. 28 this week.

Her brother Ali saved L.E. 51 too.

**How much money do both of them have now?**

What they both have =

L.E. .... + L.E. .... = L.E. ....



- b Nancy bought a bag for L.E. 52

and a pair of shoes for L.E. 33.

**How much money did she pay in all?**

What she will pay in all =

L.E. .... + L.E. .... = L.E. ....



- c Rania bought a Math book for L.E. 63

and a pencil for L.E. 5.

**How much money did she pay?**

What she paid =

L.E. .... + L.E. .... = L.E. ....



**Parents' Tips:**

- Encourage your child to solve some story problems about addition.



# (B) Subtraction money story problems



How can we help Adham to find the amount of money **left** with him?

- Adham had **L.E. 58**. He bought a toy for **L.E. 32**.  
How much money was left with him?



## Remember:

We have to figure out whether we should add or subtract to find the answer.

The money left with him =

L.E. 58



L.E. 32



L.E. 26

We need to **subtract** when we found the words:

- Left with
- The rest
- The remainder

**Second:** Subtract the tens place.

**First:** Start subtracting once place.

Tens	Ones
5	8
3	2
2	6

## Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around today's date.

**Key words:** Left with - The rest - The remainder



**Activity 2 Read, think, then solve:**

- a Sara had L.E. 89 in her purse,  
she gave her brother L.E. 27.

**How much money was left with her?**

The money left with her =

L.E. .... - L.E. .... = L.E. ....



- b Amar's father gave him L.E. 45 to buy  
a sandwich, he bought a sandwich for L.E. 25.

**How much money remained with him?**

The remainder with Amar =

L.E. .... - L.E. .... = L.E. ....



- c Farid had L.E. 69. He bought a set of  
stories for L.E. 60.

**How much money was left with him?**

The money left with him =

L.E. .... - L.E. .... = L.E. ....

**I learned**

- How to use addition and subtraction to solve money story problems.

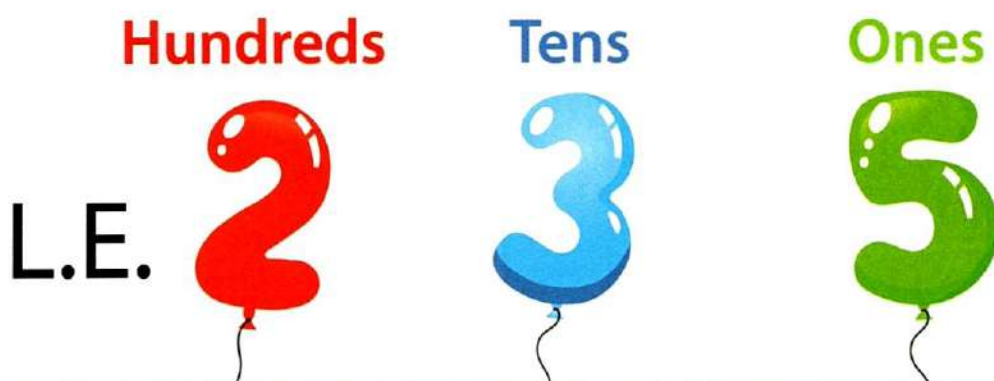




# The place value money mat



How can we represent amount of money using the place value / money mat?



- To build L.E. 235 on the place value/money mat.
- We will work with money but only **L.E. 1** , **L.E. 10** and **L.E. 100**

Place value/money mat

Hundreds	Tens	Ones

L.E. 235

**First**

Find how many **L.E. 1** in the **ones** place: **5**

**Second**

Find how many **L.E. 10** in the **tens** place: **3**

**Third**

Collect how many **L.E. 100** in the **hundreds** place: **2**

## Daily Practice:

- Invite your child to count the number of days he/she spent in school and ask him/her to draw a circle around the total number in the 120 chart.
- Ask your child to tell you the name of today and the name of day before and the day after.

**Key words:** Place value - Money mat



## Activity

1

Build the following amounts of money on the place value/money mat:

## Example

Place value/money mat

L.E. 402

Hundreds  
L.E. 100

Tens  
L.E. 10

Ones  
L.E. 1

100  
100  
100  
100

1  
1

L.E. 402

a

Place value/money mat

L.E. 310

Hundreds  
L.E. 100

Tens  
L.E. 10

Ones  
L.E. 1

L.E. ....

b

Place value/money mat

L.E. 146

Hundreds  
L.E. 100

Tens  
L.E. 10

Ones  
L.E. 1

L.E. ....

c

Place value/money mat

L.E. 254

Hundreds  
L.E. 100

Tens  
L.E. 10

Ones  
L.E. 1

L.E. ....

## Parents' Tips:

•Encourage your child to build some amounts of money using the place value/money mat.



Activity

2

Write the amount of money according to the place value/money mat:

Place value/money mat

Example

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10	1
100		1
100		
3	1	2



Place value/money mat

a

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10	
	10	
	10	



Place value/money mat

b

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
	10	1
	10	
	10	
	10	



Place value/money mat

c

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100		1
		1
		1
		1
		1



I learned

- How to build an amount of money using the place value/money mat.





# (A) Adding amounts of money without regrouping

We can add L.E. 134 + L.E. 211 using the place value/money mat



Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10 10 10	1 1 1 1
1	3	4

+

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100 100	10	1
2	1	1

=

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100 100 100	10 10 10 10	1 1 1 1 1
3	4	5

First

Add banknotes in the **ones** place L.E. 4 + L.E. 1 = L.E. 5

Second

Add banknotes in the **tens** place L.E. 30 + L.E. 10 = L.E. 40

Third

Add banknotes in the **hundreds** place L.E. 100 + L.E. 200 = L.E. 300

The result will be L.E. <sup>H</sup>3 <sup>T</sup>4 <sup>O</sup>5

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
1	3	4
2	1	1
3	4	5



**First** : Add the ones digits  
 $4 + 1 = 5$

**Second**: Add the tens digits  
 $3 + 1 = 4$

**Third** : Add the hundreds digits  
 $1 + 2 = 3$

## Daily Practice:

- Encourage your child to look at the calendar, ask him/her to draw a circle around today's date and a rectangle around yesterday date.

**Key words:** Add without regrouping - Result - Place value - Money mat



**Activity 1** Write the total amount of money, then match:

a L.E 152 + L.E 23 = L.E. ....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10 10 10 10 10	1 1
1	5	2



Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
	10 10	1 1 1
0	2	3

L.E. 536

b L.E 400 + L.E 136 = L.E. ....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100 100 100 100		
4	0	0



Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10 10 10	1 1 1 1 1 1
1	3	6

L.E. 703

c L.E 184 + L.E 310 = L.E. ....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10 10 10 10 10 10 10 10	1 1 1 1
1	8	4



Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100 100 100	10	
3	1	0

L.E. 175

d L.E 603 + L.E 100 = L.E. ....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100 100 100 100 100 100		1 1 1
6	0	3



Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100		
1	0	0

L.E. 494

**Parents' Tips:**

Help your child solve addition problems without regrouping using the place value /money mat.



# (B) Adding amounts of money with regrouping ones

We can add **L.E. 218 + L.E. 123**  
using the place value/money mat



Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
<b>2</b>	<b>1</b>	<b>8</b>

+

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
<b>1</b>	<b>2</b>	<b>3</b>

=

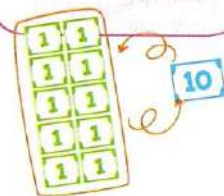
Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
<b>3</b>	<b>3</b>	<b>1</b>



Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

Regrouping ones

We regroup ten L.E. 1 as one L.E. 10



$$\text{L.E. 300} + \text{L.E. 40} + \text{L.E. 1} = \text{L.E. 341}$$

## First

We add banknotes in the ones place  $\text{L.E. 8} + \text{L.E. 3} = \text{L.E. 11}$ . When the sum of the banknotes in the ones place is bigger than **L.E. 9**, we regroup ten **L.E. 1** as one **L.E. 10**.

## Second

We add banknotes in the tens place.  
 $\text{L.E. 10} + \text{L.E. 20} + \text{L.E. 10} = \text{L.E. 40}$

## Third

We add banknotes in the hundreds place.  
 $\text{L.E. 200} + \text{L.E. 100} = \text{L.E. 300}$

## Daily Practice:

- Invite your child to count the number of days he/she spent in school and ask him/her to draw a circle around the total number in the 120 chart.
- Ask your child to tell you the name of today and the name of day before and the day after.

**Key words:** Regrouping ones - Add



2

a

**L.E. 136 + L.E. 215 = .....**

+

11

[illegible]

b

**L.E. 382 + L.E. 109 =** .....

+

11

[illegible]

- Encourage your child to solve many addition problems.



# (C) Adding amounts of money with regrouping tens

We can add L.E. 182 + L.E. 143 using the place value/money mat



Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10 10 10 10 10 10 10 10	1 1
1	8	2

+

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10 10 10 10	1 1 1
1	4	3

=

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100 100	10 10 10 10 10 10 10 10 10 10 10 10	1 1 1 1 1 1

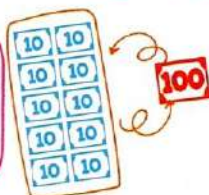
Regrouping tens



Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100 100 100	10 10 10 10 10 10 10 10 10 10 10 10	1 1 1 1 1 1

$$\text{L.E. 300} + \text{L.E. 20} + \text{L.E. 5} = \text{L.E. 325}$$

We regroup ten L.E. 10 as one L.E. 100



When the sum of banknotes in the tens place is bigger than nine L.E.10, we regroup ten L.E. 10 as one L.E. 100

## Daily Practice:

- Invite your child to count the number of days he/she spent in school and ask him/her to draw a circle around the total number in the 120 chart.
- Ask your child to tell you the name of today and the name of day before and the day after.

**Key words:** Regrouping tens



**Activity 3** Solve the following problems using the place value/money mat:

a

$$\text{L.E. } 375 + \text{L.E. } 450 = \dots\dots\dots$$

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

+

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

=

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

b

$$\text{L.E. } 120 + \text{L.E. } 293 = \dots\dots\dots$$

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

+

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

=

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

### Parents' Tips:

- Encourage your child to solve some money problems about addition.



## Activity

4

Add and match:

a

$$\text{L.E. } 351 + \text{L.E. } 174$$

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10	1
100	10	
100	10	
	10	
	10	

+

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10	1
	10	1
	10	1
	10	1
	10	

○

L.E. 861

b

$$\text{L.E. } 186 + \text{L.E. } 41$$

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10	1
	10	1
	10	1
	10	1
	10	1

+

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
	10	1
	10	
	10	
	10	

○

L.E. 525

c

$$\text{L.E. } 754 + \text{L.E. } 107$$

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10	1
100	10	1
100	10	1
100	10	1
	10	

+

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100		1
		1
		1
		1

○

L.E. 227



## I learned

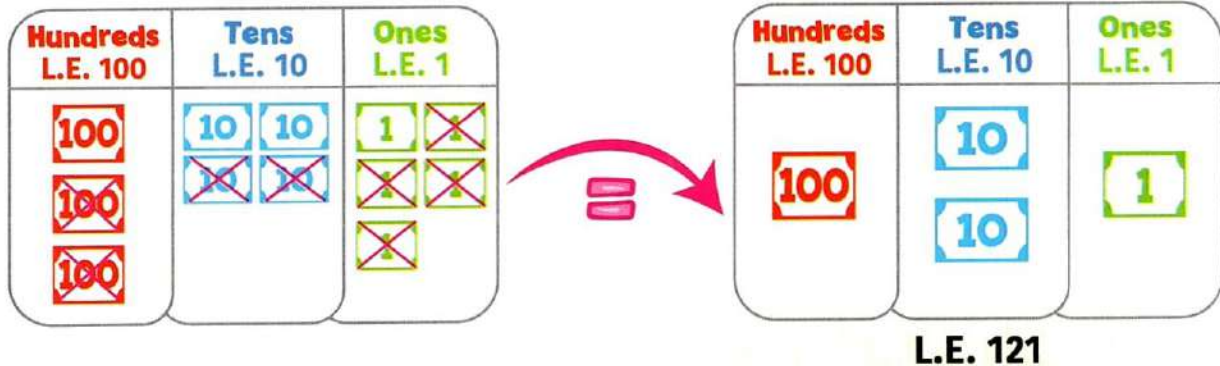
- How to solve money addition problems with and without regrouping using the place value/money mat.





# (A) Subtracting amounts of money without regrouping

How can we subtract **L.E. 345 – L.E. 224** using place value/money mat?



## First

Represent the minuend 345 on the place value money mat.

## Second

In the ones place cross out L.E. 4 from L.E. 5

So,  $5 \text{ } \boxed{1} - 4 \text{ } \boxed{1} = 1 \text{ } \boxed{1}$

## Third

In the tens place, cross out L.E. 20 from L.E. 40

So,  $4 \text{ } \boxed{10} - 2 \text{ } \boxed{10} = 2 \text{ } \boxed{10}$

## Fourth

In the hundreds place, cross out L.E. 200 from L.E. 300

So,  $3 \text{ } \boxed{100} - 2 \text{ } \boxed{100} = 1 \text{ } \boxed{100}$

The result will be **L.E. 121**

### Daily Practice:

- Encourage your child to look at the calendar, then ask him/her to draw a circle around today's date.
- Help your child to tell you the name of the current day and the current month.

**Key words:** Subtracting - Without regrouping - Place value - Money mat - Minuend



## Activity

1

Cross out to solve each subtraction problem, then match to its suitable answer:

a  $L.E.322 - L.E.11$



b  $L.E.543 - L.E.421$



c  $L.E.203 - L.E.203$



L.E. 0

L.E. 307

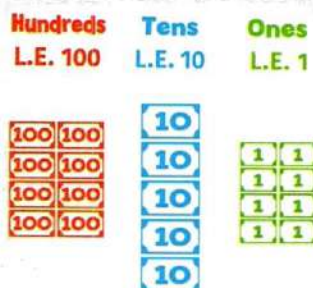
L.E. 150

L.E. 311

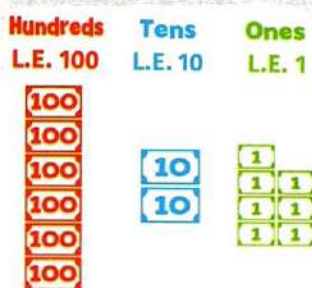
L.E. 55

L.E. 122

d  $L.E.858 - L.E.803$



e  $L.E.627 - L.E.320$



f  $L.E.270 - L.E.120$



## Parents' Tips:

- Help your child solve subtraction problem without regrouping using the place value/money mat.



# (B) Subtracting amounts of money with regrouping tens

How can we subtract L.E. 546 – L.E. 19 using place value/money mat?



The minuend L.E. 546 after regrouping

L.E. 546 – L.E. 19

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10	1
100	10	1
100	10	1
100	10	1
100	10	1

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1
100	10	1
100	10	1
100	<del>10</del>	<del>1</del>
100		<del>1</del>
100		<del>1</del>
100		<del>1</del>
5	2	7

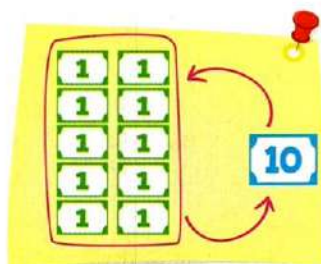
## First

When we subtract the banknote in the ones place, we found that there isn't enough ones to take away L.E. 9 from L.E. 6. So we will regroup one L.E. 10 into ten L.E. 1. Then we get L.E. 16 in the ones place.

## Second

Cross out L.E. 9 from L.E. 16

$$\text{So, } 16 \text{ } \boxed{1} - 9 \text{ } \boxed{1} = 7 \text{ } \boxed{1}$$



We regroup ten L.E. 1 as one L.E. 10

## Third

In the tens place there are 3 of L.E. 10 now so subtract,  $3 \text{ } \boxed{10} - 1 \text{ } \boxed{10} = 2 \text{ } \boxed{10}$

## Fourth

In the hundreds place subtract

$$5 \text{ } \boxed{100} - 0 \text{ } \boxed{100} = 5 \text{ } \boxed{100}$$

The result will be L.E. 527

### Daily Practice:

- Encourage your child to look at the calendar. Ask him/her to draw a circle around today's date.
- Help your child to tell you the name of the day and the name of the month.

**Key words:** Subtract - Regrouping ones



## Activity

2

Solve the following subtraction problems using the place value/money mat:

a

L.E. 381

-

L.E. 125

=

L.E. = .....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

b

L.E. 453

-

L.E. 128

=

L.E. = .....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

c

L.E. 642

-

L.E. 439

=

L.E. = .....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

d

L.E. 593

-

L.E. 278

=

L.E. = .....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

## Parents' Tips:

- Help your child solve subtraction problems with regrouping.

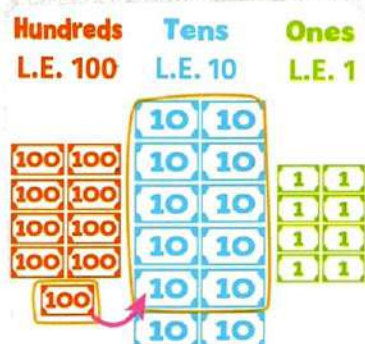


# (C) Subtracting amounts of money with regrouping hundreds

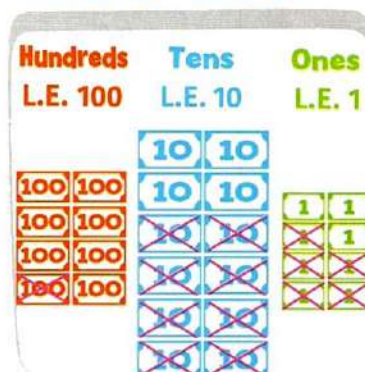
How can we subtract **L.E. 928 – L.E. 185** by using the place value/money mat?



The minuend **L.E. 928** after regrouping



**L.E. 928 – L.E. 185**



**First**

Start subtracting from the ones place

$$8 \text{ [1]} - 5 \text{ [1]} = 3 \text{ [1]}$$

**Second**

In the tens place we cannot find enough tens to

take away 8  $\text{[10]}$   $\xrightarrow{\text{from}}$  2  $\text{[10]}$

So, we regroup 1  $\text{[100]}$   $\xrightarrow{\text{into}}$  10  $\text{[10]}$

Then, we get:

$$2 \text{ [10]} + 10 \text{ [10]} = 12 \text{ [10]} \text{ in the tens place}$$

**Third**

In the tens place subtract

$$12 \text{ [10]} - 8 \text{ [10]} = 4 \text{ [10]}$$

**Fourth**

In the hundreds place there are 8 of  $\text{[100]}$  now, subtract

$$8 \text{ [100]} - 1 \text{ [100]} = 7 \text{ [100]}$$

$$\text{L.E. 928} - \text{L.E. 185} = \text{L.E. 743}$$

## Daily Practice:

- Encourage your child to look at the calendar, ask him/her to draw a circle around today's date.

**Key words:** Regrouping hundreds



## Activity

3

Solve the following subtraction problems:

## Example



614

-

292

=

322

Hundreds  
L.E. 100Tens  
L.E. 10Ones  
L.E. 1Hundreds  
L.E. 100Tens  
L.E. 10Ones  
L.E. 1

a

734

-

183

=

Hundreds  
L.E. 100Tens  
L.E. 10Ones  
L.E. 1Hundreds  
L.E. 100Tens  
L.E. 10Ones  
L.E. 1

b

802

-

391

=

Hundreds  
L.E. 100Tens  
L.E. 10Ones  
L.E. 1Hundreds  
L.E. 100Tens  
L.E. 10Ones  
L.E. 1

## Parents' Tips:

- Practice with your child to solve many subtraction problems with regrouping using the place value money mat.



**Activity 4** Solve the following subtraction problems, then match:

**a** L.E. 472 - L.E. 191

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

**b** L.E. 527 - L.E. 409

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

L.E. 118

L.E. 302

L.E. 281

L.E. 415

**c** L.E. 843 - L.E. 428

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

**d** L.E. 321 - L.E. 19

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1



**I learned**

- How to solve subtraction money problems with and without regrouping using the place value/money mat.





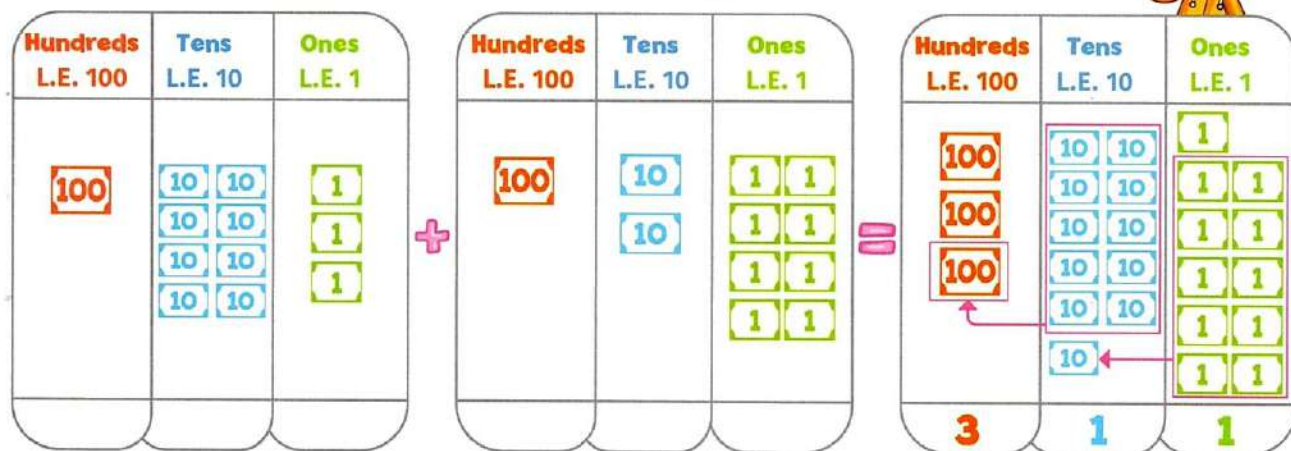
# Addition and subtraction money story problems with regrouping

## Addition story problems



Yassin bought a T-shirt for L.E. 183 and a pair of shoes for L.E. 128, how much money did he pay?

$$\text{L.E. } 183 + \text{L.E. } 128 = \text{L.E. } 311$$

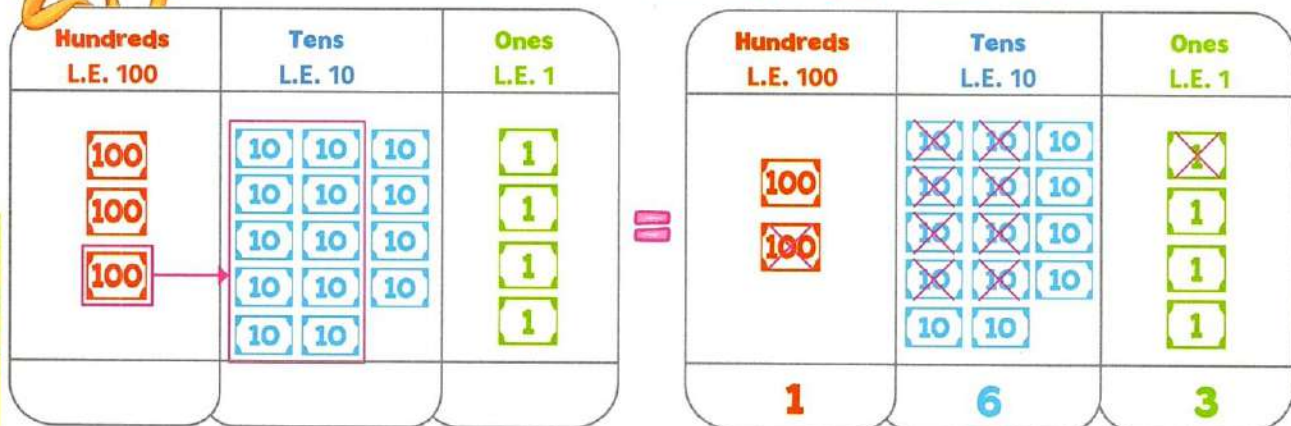


## Subtraction story problems



Zina saved L.E. 344. She wants to buy a pair of shoes for L.E. 181. How much money will be left with her?

$$\text{L.E. } 344 - \text{L.E. } 181 = \text{L.E. } 163$$



Daily Practice:

• Encourage your child to look at the calendar, ask him/her to draw a circle around today's date.

Key words: Left



**Activity 1** Read and think, then solve:

- a Jasmine bought some milk for L.E. 24 and some meat for L.E. 57.  
How much money did she pay in all?

Hundreds	Tens	Ones
L.E. 100	L.E. 10	L.E. 1



- b On Sally's birthday, her grandmother gave her L.E. 382 and her grandfather gave her L.E. 143.  
How much money did Sally have now?

Hundreds	Tens	Ones
L.E. 100	L.E. 10	L.E. 1



- c Perry went to a pet shop, she bought a gold fish for L.E. 29 and a black fish for L.E. 35.  
How much money did she pay?

Hundreds	Tens	Ones
L.E. 100	L.E. 10	L.E. 1



**Parents' Tips:**

- Encourage your child to solve some story problems and figure out the sign.

**Key words:** In all - Pay



## Activity 2 Read, think, then solve:

- a Khaled had L.E. 718. He bought a scooter for L.E. 291.  
How much money was left with him?

**Hundreds**  
L.E. 100

**Tens**  
L.E. 10

**Ones**  
L.E. 1



- b Marwa has L.E. 962. She bought a dress for L.E. 358.  
How much money left with her?

**Hundreds**  
L.E. 100

**Tens**  
L.E. 10

**Ones**  
L.E. 1



- c Amira had L.E. 120. She wants to buy a cake for L.E. 68.  
How much money will be left with her?

**Hundreds**  
L.E. 100

**Tens**  
L.E. 10

**Ones**  
L.E. 1



## Parents' Tips:

- Encourage your child to solve some story problems by finding the suitable operation.

**Key words:** Left



Activity 3 Match:



I have  
a L.E. 321 + L.E. 192.  
Who has L.E. 725?



Who has  
1 L.E. 256 + L.E. 181?  
I have L.E. 363.



I have  
b L.E. 853 - L.E. 238.  
Who has L.E. 352?



Who has  
2 L.E. 582 + L.E. 143?  
I have L.E. 513.



I have  
c L.E. 129 + L.E. 234.  
Who has L.E. 437?



Who has  
3 L.E. 536 - L.E. 184?  
I have L.E. 615.



I learned

- How to solve money addition and subtraction story problems using the place value money mat.





# Summary



Estimate the value of different items.

Solve some addition and subtraction money story problems using money mat.



Combine banknotes and decompose a banknote using different ways.

Add and subtract amounts of money without regrouping and with regrouping (ones, tens).

Spend money without exceeding my budget.

Use the place value money mat to add and subtract money.





# General Activities on Chapter 1

## 1 Match:

a



L.E. ....

b



L.E. ....

c



L.E. ....

d



L.E. ....

1



L.E. ...., L.E. ...., L.E. ....

2



L.E. ...., L.E. ....

3



L.E. ...., L.E. ...., L.E. ....

L.E. ...., L.E. ...., L.E. ....

4



L.E. ...., L.E. ...., L.E. ....

, L.E. ....



2 Put (✓) if the money they have is enough to buy the item, and (✗) if the money they have isn't enough to buy the item:



3 Complete to form an equal amount of money:



= L.E. ....



= L.E. ....



= L.E. ....



4 Color the object you can buy according to the money you have in each purse:



L.E. ....



L.E. ....



L.E. ....



5 Read, think, then solve:

- a Mai went to the market. She bought some juice for L.E. 25 and some milk for L.E. 38, **how much money did she spend in all?**

What she spent = .....



- b Sally saved L.E. 720, she bought a dress for L.E. 180, **how much money was left with her?**

The left money = .....





6 Solve the following problems using the place value/money mat:

a L.E. 276 + L.E. 351 = .....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

+

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

=

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

b L.E. 523 - L.E. 181 = .....

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1

=

Hundreds L.E. 100	Tens L.E. 10	Ones L.E. 1



# fun time

In the large place value money mat color the banknotes to form a number according to the given key:

L.E. 225

L.E. 201

L.E. 121

L.E. 452

**Hundreds**

L.E. 100



**Tens**

L.E. 10



**Ones**

L.E. 1





# Chapter

# 2



Pacing  
Guide

## **Lesson (71): Even and odd numbers**

**Outcomes:**

- Determine whether a number is even or odd.

## **Lesson (72): The doubles of even or odd numbers**

**Outcomes:**

- Determine whether doubling a number results in even or odd.

## **Lesson (73): Adding even and odd numbers**

**Outcomes:**

- Determine whether adding an even and an odd number gives a result of an even or odd sum.

## **Lesson (74): The shape pattern**

**Outcomes:**

- Identify the rule of the shape pattern.

## **Lesson (75): The number pattern using addition operation**

**Outcomes:**

- Add to extend a pattern.
- Extend increasing number patterns using a given rule.
- Create an increasing number pattern.

## **Lesson (76): The number pattern using subtraction operation**

**Outcomes:**

- Subtract to extend a pattern.

- Extend decreasing number pattern a given rule.

- Create a decreasing number pattern.

## **Lesson (77): Number pattern with more than one rule**

**Outcomes:**

- Identify the number pattern that has more than one rule.
- Extend number patterns up to five places using more than one rule.

- Create addition and subtraction pattern rules.

## **Lesson (78): Arrays**

**Outcomes:**

- Define an array.
- Identify arrays and non-arrays.
- Create an array.

## **Lessons (79 & 80): Forming equations for arrays**

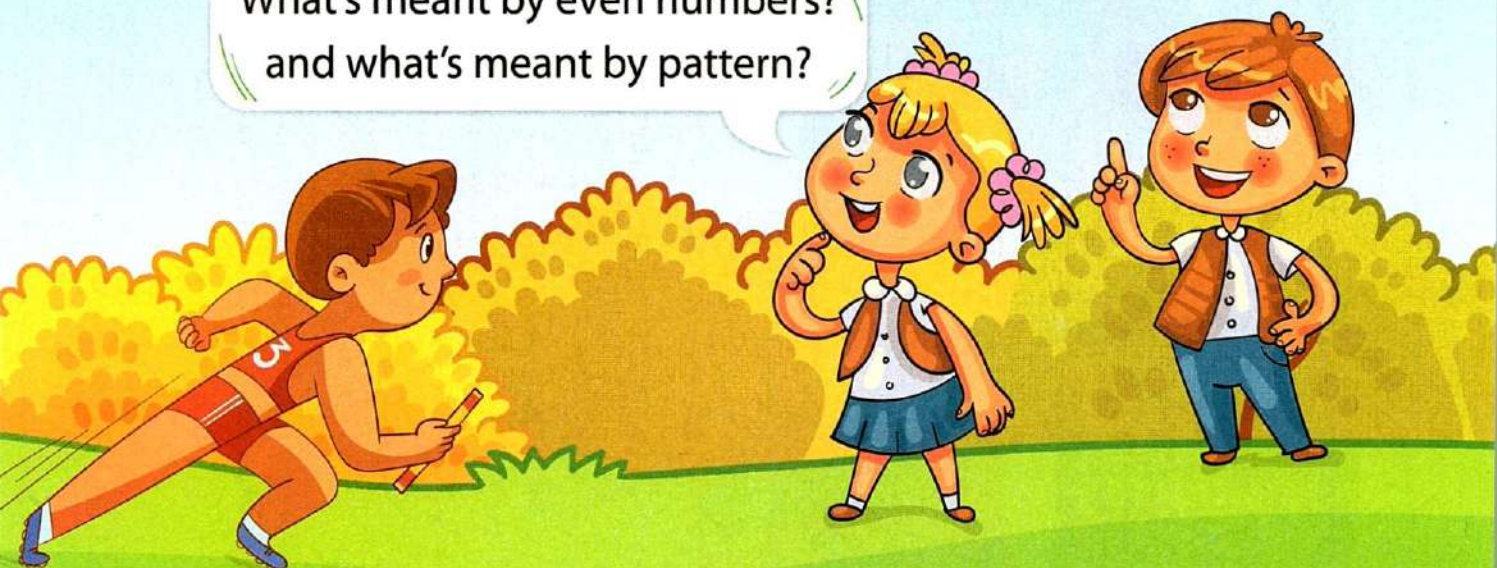
**Outcomes:**

- Use repeated addition to find the total number of objects in an array.
- Write addition equations to express the total number of objects in an array.
- Design an array using repeated addition.



Ali jumps on the even numbers to make a pattern.

What's meant by even numbers?  
and what's meant by pattern?



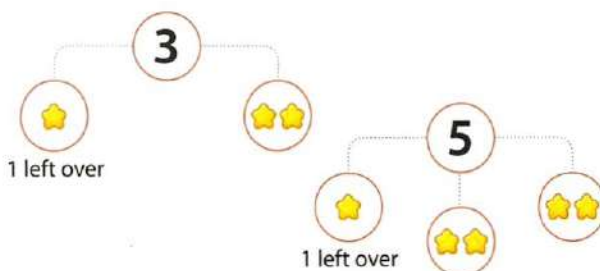
0 1 2 3 4 5 6 7 8 9 10

We will know what is  
meant by even numbers  
and patterns in  
this chapter.



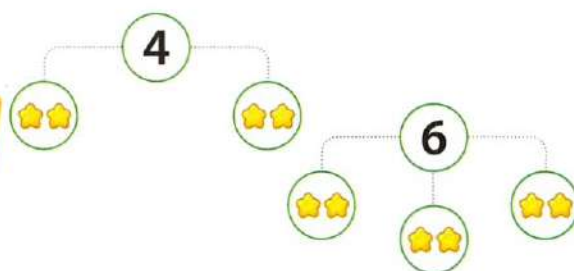


## Odd number



It is the number that can't be split into equal groups, because there is always one left over such as (1, 3, 5, 7, 9).

## Even number



It is the number that can be split into equal groups such as (2, 4, 6, 8, 10).

To find the even or the odd numbers that has more than 1-digit, just look at the ones place if it is:

(1, 3, 5, 7, 9)

The number is odd

81, 263, 405

(0, 2, 4, 6, 8)

The number is even

32, 74, 106

### Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the day and the name of the day before and the day after.

**Key words:** Even - Odd - Left over - Partners

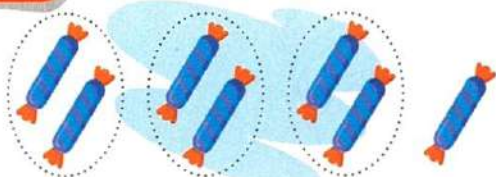


## Activity

1

Make groups of 2, write even or odd, then tick (✓) if there is one left over:

## Example



How many  are there? 7

Is it even or odd? Odd



a

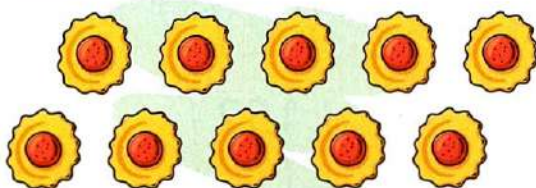


How many  are there? .....

Is it even or odd? .....



b



How many  are there? .....

Is it even or odd? .....



c



How many  are there? .....

Is it even or odd? .....



d



How many  are there? .....

Is it even or odd? .....



e



How many  are there? .....

Is it even or odd? .....



## Activity

2

Tick (✓) to choose the correct answers:

a

Which numbers are even?



.....



.....



.....



.....



.....



.....



.....



.....

b

Which numbers are odd?



.....



.....



.....



.....



.....



.....



.....



.....

## Parents' Tips:

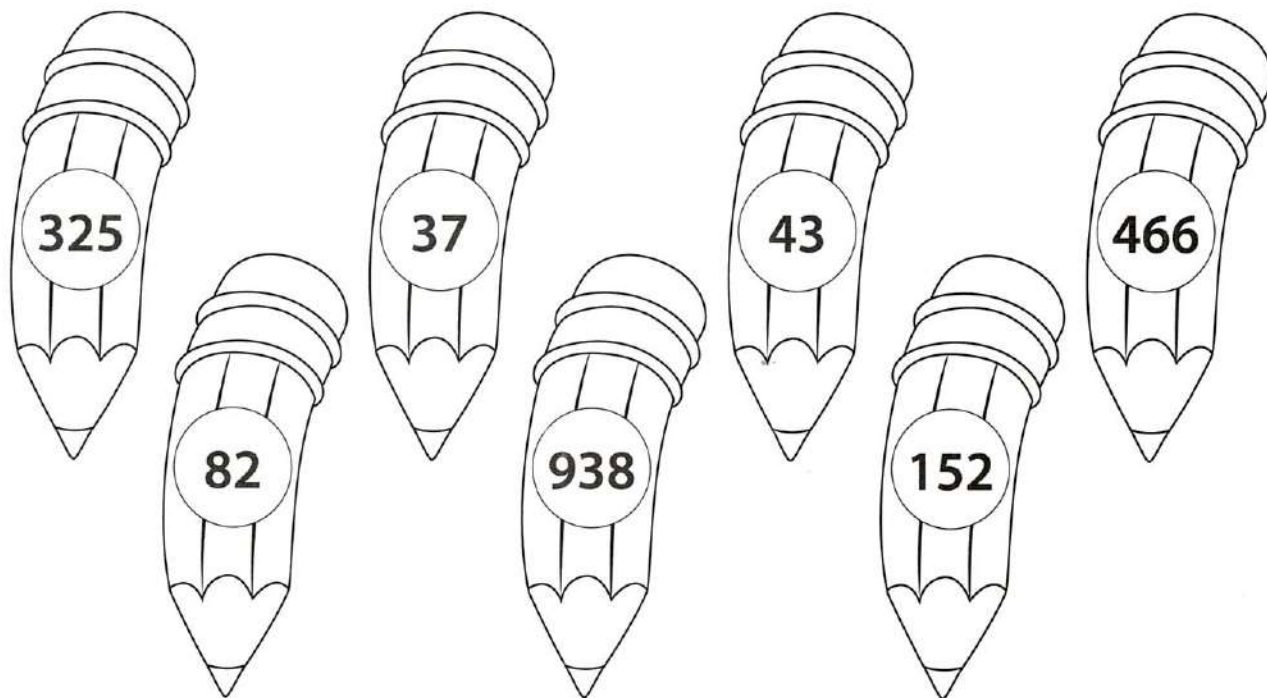
- Encourage your child to determine the difference between the odd number and the even number.



## Activity

3

Color the even number in blue and the odd number in pink according to the ones place of each number:



## Activity

4

Think, then solve using the given digits:

## Example

Form numbers consist of 2 digits using digits **8**, **3** to get

Even number: ..... **38** .....

Odd number: ..... **83** .....

a

Form numbers consist of 3 digits using digits **6**, **1**, **1** to get

Even number: .....

Odd numbers: .....

b

Form numbers consist of 3 digits using digits **5**, **0**, **6** to get

Even numbers: .....

Odd numbers: .....

c

Form numbers consist of 2 digits using digits **4**, **9** to get

Even number: .....

Odd number: .....

## Parents' Tips:

- Ensure that your child can find the even or odd numbers that consist of 2 digits.



Activity

5

Use the given number chart up to 120 to answer the given questions:

a Color even numbers starting from 21 to 30 in red?  
The numbers are: .....

b Color odd numbers starting from 31 to 43 in blue?  
The numbers are: .....

c Color even numbers starting from 40 to 80 in red?  
The numbers are: .....

d Color odd numbers starting from 79 to 100 in blue?  
The numbers are: .....

e Color even numbers starting from 90 to 120 in red?  
The numbers are: .....

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120



Now look at the chart, what do you notice?



## I learned

- Even number can be split into equal parts such as (2, 4, 6, 8, 10).
- Odd number cannot be split into equal parts because there is always one left over such as (1, 3, 5, 7, 9).
- If the ones digit of the 2 or 3-digit number is:
  - (0, 2, 4, 6, 8), then the number is even.
  - (1, 3, 5, 7, 9), then the number is odd.





# The doubles of even or odd numbers

Odd

5

+

Odd

5

=

Even

10



If we double an odd number, we get an even sum.

Even	Odd
0	1
2	3
4	5
6	7
8	9

Even

8

+

Even

8

=

Even

16



If we double an even number, we get an even sum.



That means  
the double of  
any number must be  
an **Even number**.

## Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the current day and the name of the current month.

**Key words:** Doubles - Sum - Even - Odd

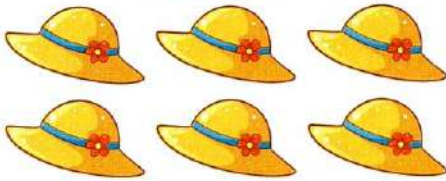


Activity

Add, then color odd or even according to the result:

Example

$$3 + 3$$



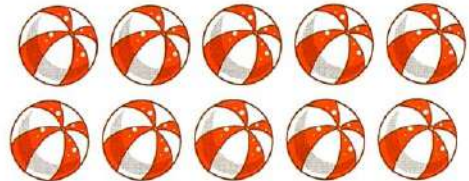
odd

6

even

a

$$5 + 5$$



odd

.....

even

b

$$7 + 7$$



odd

.....

even

c

$$2 + 2$$



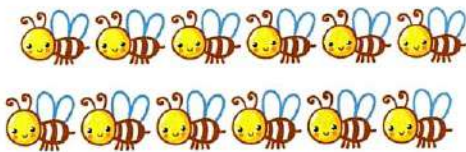
odd

.....

even

d

$$6 + 6$$



odd

.....

even

e

$$8 + 8$$



odd

.....

even



I learned

- If we double an odd number or an even number, we get an even sum.





# Adding even and odd numbers

Let's add even and odd numbers.



If we add two odd numbers together we get an even sum.

Odd                      Odd                      Even

$$3 + 5 = 8$$





Even	Odd
0	1
2	3
4	5
6	7
8	9

If we add two even numbers together we get an even sum.

Even                      Even                      Even

$$4 + 2 = 6$$








If we add an even number to an odd number we get an odd sum.




Even                      Odd                      Odd

$$6 + 3 = 9$$

Even                      Odd                      Odd

$$2 + 5 = 7$$

## Daily Practice:

- Encourage your child to count the numbers of days he/she spent in school and color the total number in 120 chart with yellow.

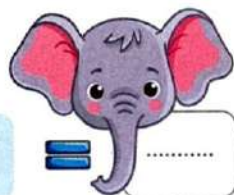
**Key words:** Even - Odd - Sum



**Activity 1** Add, then circle whether the sum is even or odd:

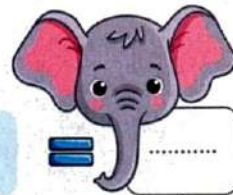
a

$$4 + 4 = \text{.....}$$

even **or** odd

b

$$4 + 5 = \text{.....}$$

even **or** odd

c

$$3 + 4 = \text{.....}$$

even **or** odd

d

$$1 + 7 = \text{.....}$$

even **or** odd

e

$$7 + 0 = \text{.....}$$

even **or** odd

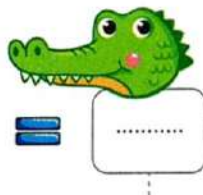
f

$$8 + 2 = \text{.....}$$

even **or** odd

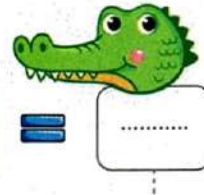
g

$$6 + 4 = \text{.....}$$

even **or** odd

h

$$5 + 3 = \text{.....}$$

even **or** odd

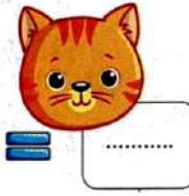
i

$$2 + 7 = \text{.....}$$

even **or** odd

j

$$10 + 0 = \text{.....}$$

even **or** odd

**Parents' Tips:**

- Ensure that your child can find the sum of adding and can determine if it is even or odd.



## Activity

2

Determine whether the answer is even or odd without adding:

## Example

$$14 + 5$$

even + odd = odd

$$31 + 8$$

..... + ..... = .....

$$23 + 17$$

..... + ..... = .....

$$8 + 10$$

..... + ..... = .....

## Activity

3

Add, then color whether the answer is odd or even:

## Example



$$21 + 2 = 23$$

even

odd

a



$$9 + 6 =$$

even

odd

b



$$2 + 8 =$$

even

odd

c



$$6 + 3 =$$

even

odd

d



$$5 + 1 =$$

even

odd

e



$$3 + 10 =$$

even

odd

## Parents' Tips:

- Encourage your child to determine whether the sum is even or odd without adding.
- Practice with your child on adding, then figure out whether the result is even or odd.



## Activity

4

Add the dots on the dice, color, then determine whether the answer is even or odd:

## Example

13

even

odd

a

even

odd

b

even

odd

c

even

odd

d

even

odd

e

even

odd



## I learned

## • If I add:

- even + even = even

- odd + odd = even

- odd + even = odd

- even + odd = odd





# The shape pattern

We can see shape patterns in our life like my dress.

Let's learn how to form a shape pattern

Rule



We must find the rule to complete the shape pattern.

## Daily Practice:

- Encourage your child to count the numbers of days he/she spent in school and draw a circle around the total number in the 120 chart.
- Help your child tell you the name of the day and the name of the month.

**Key words:** Shape pattern



## Activity

Complete the shape pattern by finding the rule for each one:

## Example



Rule:

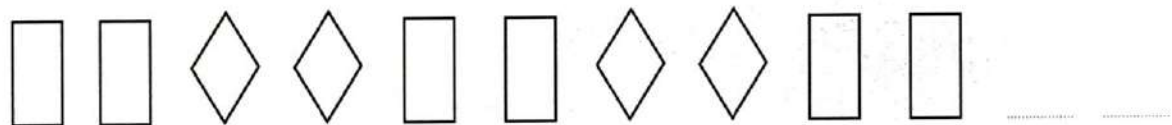


a



Rule: .....

b



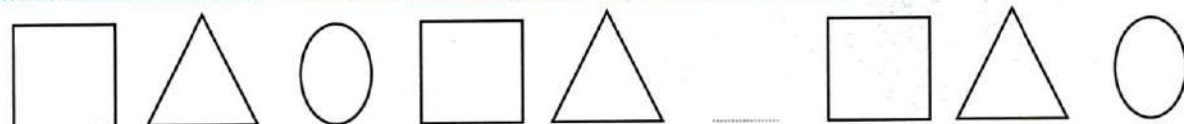
Rule: .....

c



Rule: .....

d



Rule: .....



I learned

- How to form a shape pattern and how to find its rule.

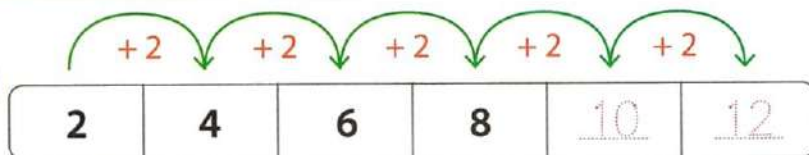




# The number pattern using addition operation

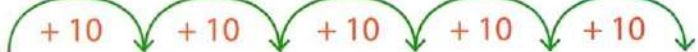
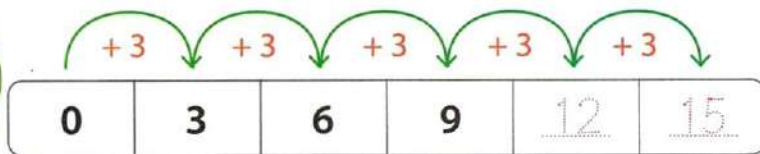
When we find that the number is getting bigger in the pattern (increasing pattern). This means that the rule is adding a number each time.

**Rule**  
add 2  
each time



**Rule**  
+5

**Rule**  
add 3



**Rule**  
+10

Start at the given number, then use the pattern rule to find the next number.



- Pattern of even numbers
- 2, 4, 6, 8, 10
- 10, 12, 14, 16, 18
- 20, 22, 24, 26, 28
- In the 2-digit number just notice ones place to figure out even or odd.

**78, 32, 90**



- Pattern of odd numbers
- 1, 3, 5, 7, 9
- 11, 13, 15, 17, 19
- 21, 23, 25, 27, 29
- In the 2-digit number just notice ones place to figure out even or odd.

**51, 79, 63**

## Daily Practice:

- Invite your child to look at the calendar and ask him/her to color today's date in blue.

**Key words:** Increasing number pattern - Rule



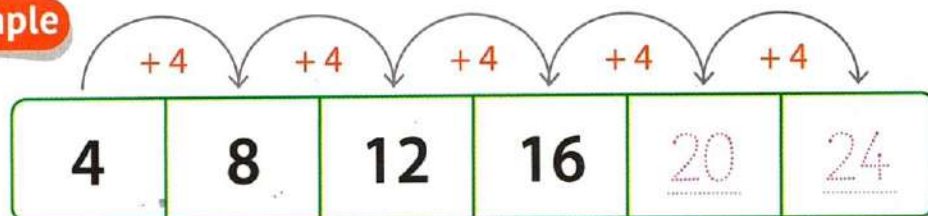


Activity

1

Complete the following patterns by identifying the rule of each one:

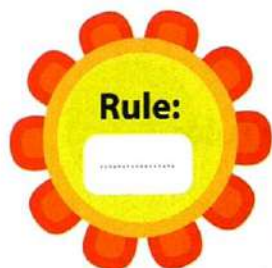
Example



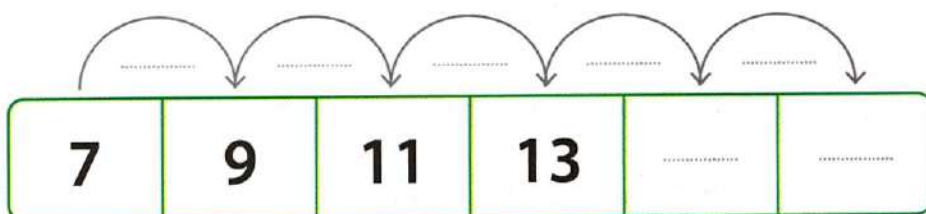
Rule:

+ 4

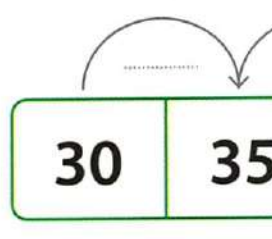
a



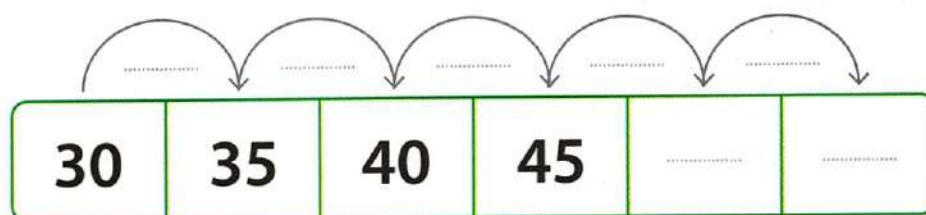
Rule:



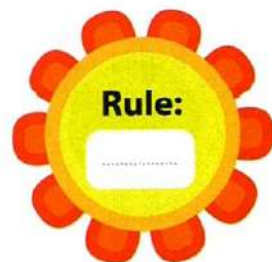
b



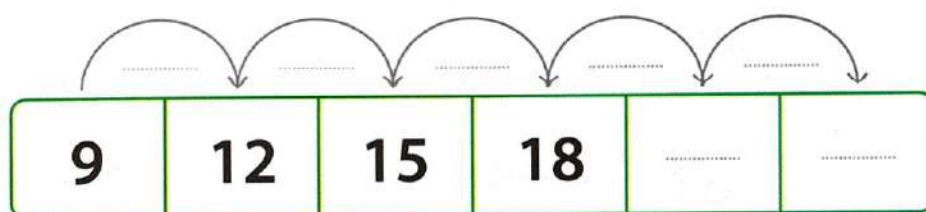
Rule:



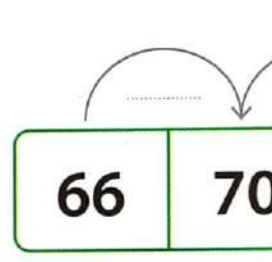
c



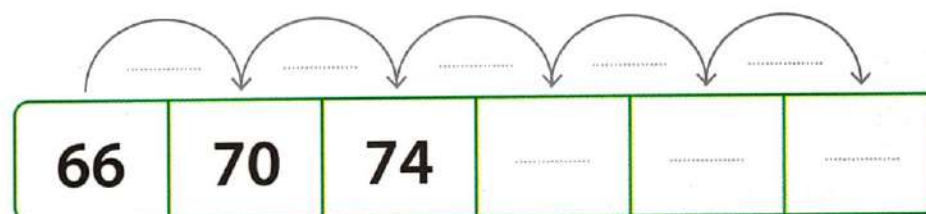
Rule:



d



Rule:



Parents' Tips:

- Encourage your child to find the rule of each pattern.



## Activity 2

Match each pattern to its suitable rule:

a 30, 40, 50, 60

b 7, 14, 21, 28

c 31, 42, 53, 64

d 20, 24, 28, 32

Rule: + 4

Rule: + 10

Rule: + 7

Rule: + 11

## Activity 3

Complete the pattern by identifying the rule:

a 10, 15, 20, 25, , , ,

Rule: .....

b 20, 26, 32, 38, , , ,

Rule: .....

c 53, 62, 71, 80, , , ,

Rule: .....

d 49, 59, 69, 79, , , ,

Rule: .....



## I learned

- How to form an increasing number pattern using its rule.

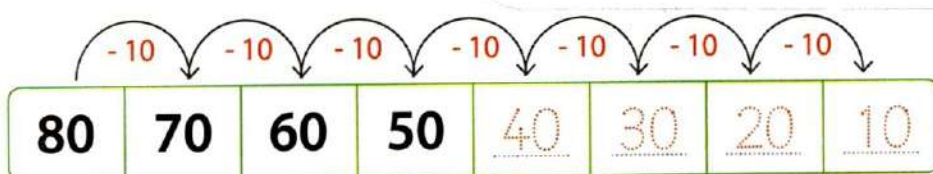




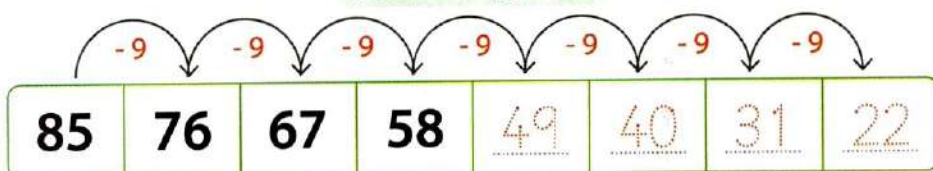
# The number pattern using subtraction operation

When we find that the number is getting smaller in the pattern (decreasing pattern). This means that the rule is subtracting a number each time.

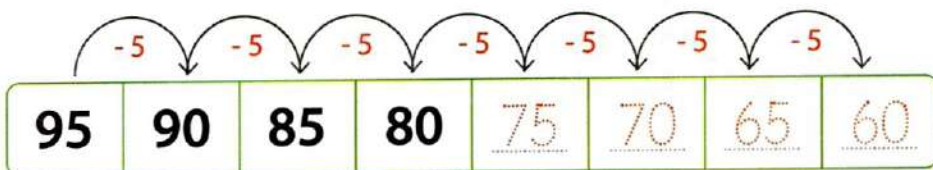
Start at the given number, then use the pattern rule to find the next number.



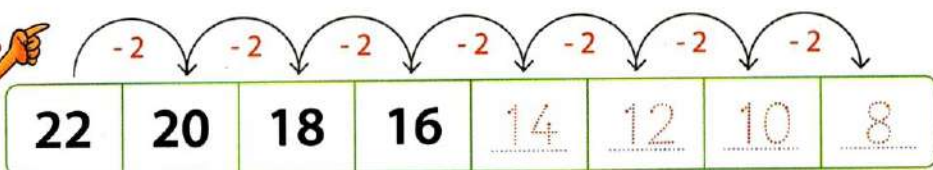
Rule: Subtract 10



Rule: - 9



Rule: - 5



Rule: - 2



## Daily Practice:

• Invite your child to look at the calendar and ask him/her to color today's date in yellow.

**Key words:** Decreasing number pattern



## Activity

1

Complete the pattern by identifying the rule:

## Example

66, 63, 60, 57, 54, 51, 48, 45

Rule:

- 3

a

90, 80, 70, 60, , , ,

Rule:

b

90, 85, 80, 75, , , ,

Rule:

c

80, 71, 62, 53, , , ,

Rule:

d

28, 24, 20, 16, , , ,

Rule:

e

32, 30, 28, 26, , , ,

Rule:

## Parents' Tips:

- Encourage your child to find out the rule of decreasing pattern.



## Activity

2

Match each pattern to its suitable rule:

a 32, 24, 16, 8

○

b 40, 30, 20, 10

○

c 15, 12, 9, 6

○

d 35, 30, 25, 20

○

○

Rule: - 5

○

Rule: - 10

○

Rule: - 8

○

Rule: - 3

## Activity

3

Complete the pattern by identifying the rule:

a 90, 81, 72, 63, .....

Rule: .....

b 100, 90, 80, 70, .....

Rule: .....

c 27, 24, 21, 18, .....

Rule: .....



## I learned

- How to form a decreasing number pattern using its rule.





# Number pattern with more than one rule

Look at the following number pattern

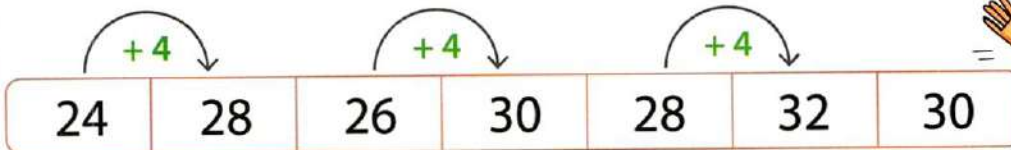
24	28	26	30	28	32	30
----	----	----	----	----	----	----

The pattern increases, then decreases, then increases and so on:

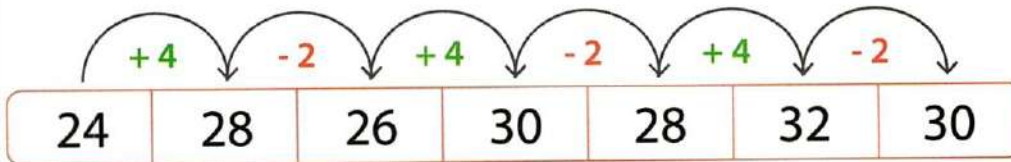
- When it increases we are adding.
- When it decreases we are subtracting.

## Let's find the rule

**First:** We will find the numbers that are getting bigger.



**Second:** We will find the numbers that are getting smaller.



**The rule is + 4 , then - 2**



The pattern has more  
than one rule.

Rule is **+ 4** and **- 2**

### Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Help your child count the number of days he/she has spent in school and draw a circle around the total number in the 120 chart.

**Key words:** Increase - Decrease - Small - Big - Rule

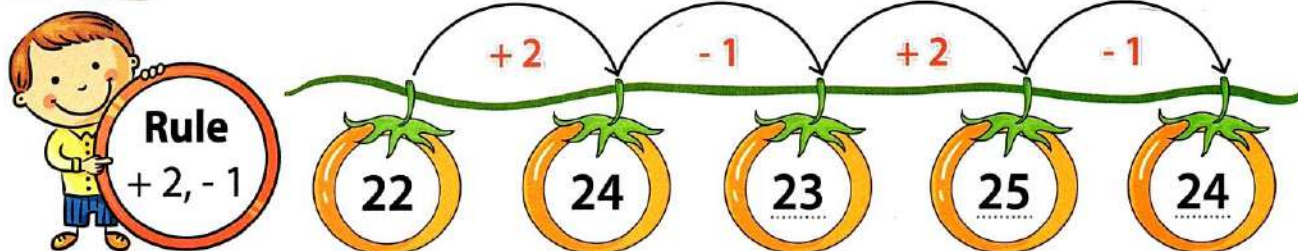


Activity

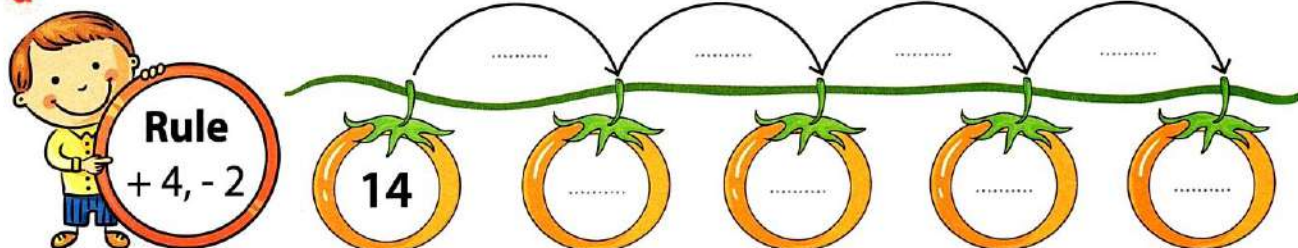
1

Create your own pattern using the given rules starting by the first number:

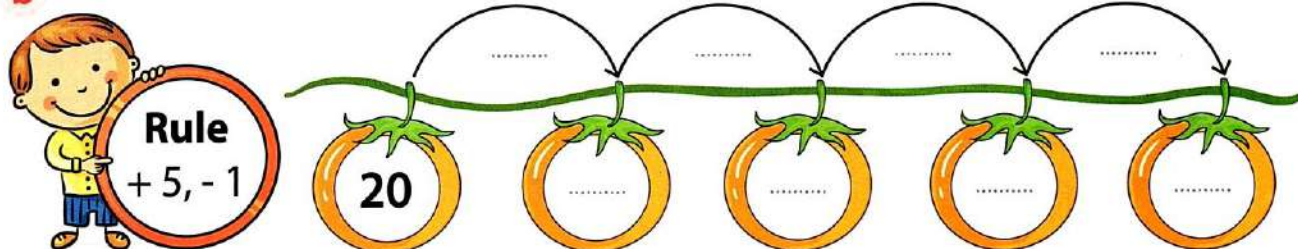
Example



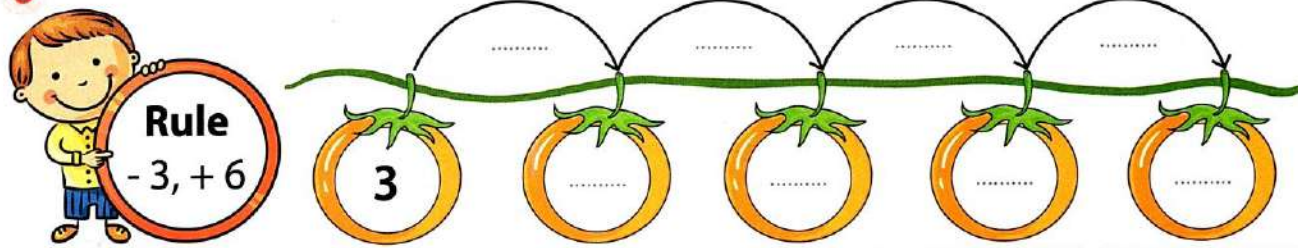
a



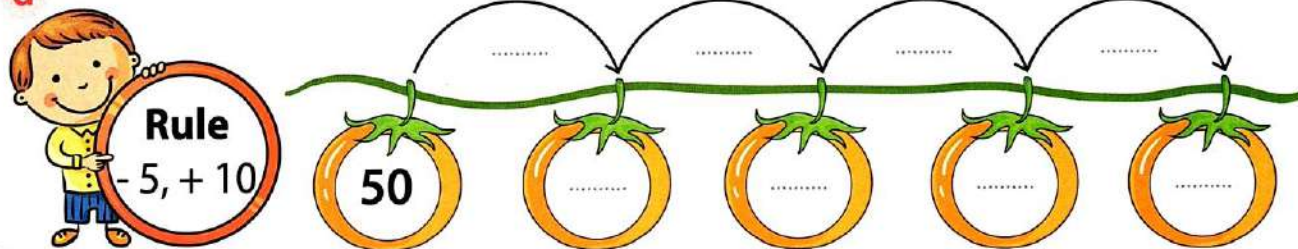
b



c



d


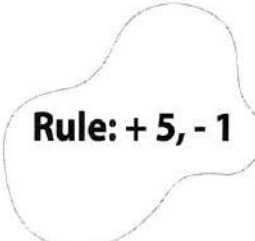
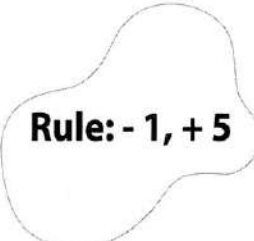



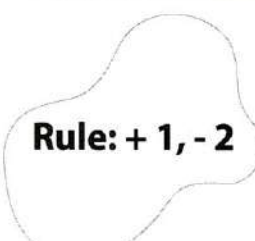
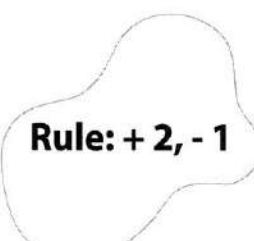
Parents' Tips:

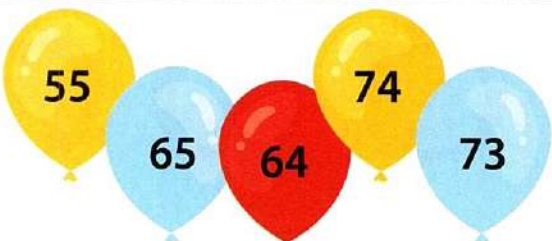
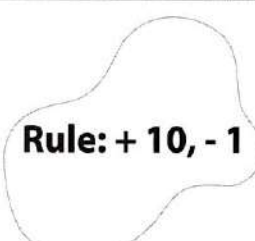
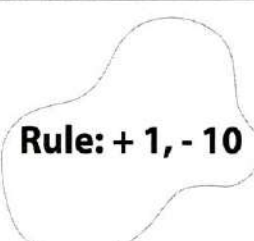
- Help your child to form a pattern that has more than one rule (+, -).


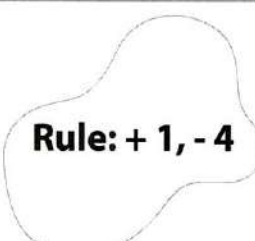
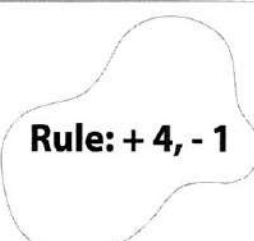



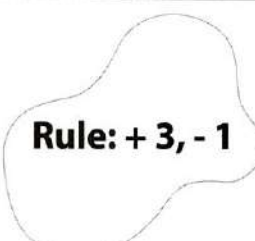
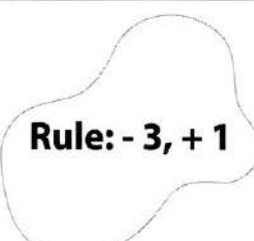
**Activity 2** Color the suitable rule:

a  ,  Rule: + 5, - 1  Rule: - 1, + 5

b  ,  Rule: + 1, - 2  Rule: + 2, - 1

c  ,  Rule: + 10, - 1  Rule: + 1, - 10

d  ,  Rule: + 1, - 4  Rule: + 4, - 1

e  ,  Rule: + 3, - 1  Rule: - 3, + 1

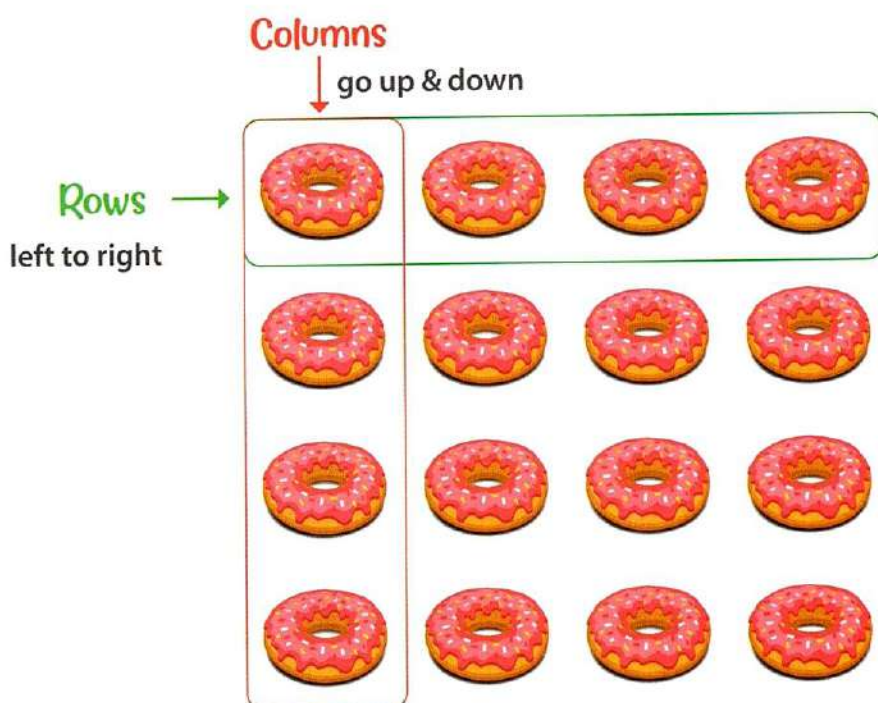
**I learned**

- How to form a pattern with a rule that requires adding and subtracting in the same pattern.





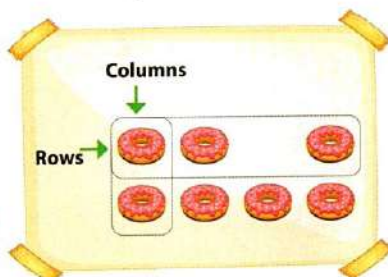
- An array is a kind of pattern.
- It has objects that are arranged in rows and columns with no gaps.
- It can be formed vertically or horizontally.



This is called an array because it has **no gap**.

## Be careful:

This isn't an array, it is just a picture because it has **a gap**.



All rows have the same number of items.  
All columns have the same number of items.



## Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the day and the name of the month.

**Key words:** Array - Row - Column - Vertically - Horizontally - Gap

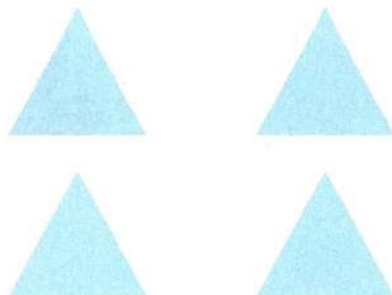


## Activity

1

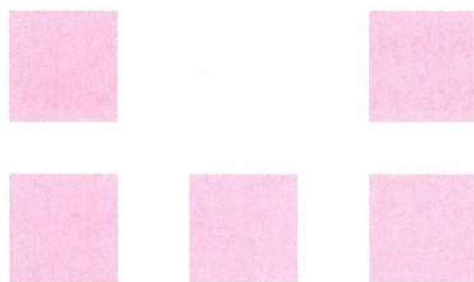
Look at the following figures, then tick (✓) to determine whether it is an array or not:

a



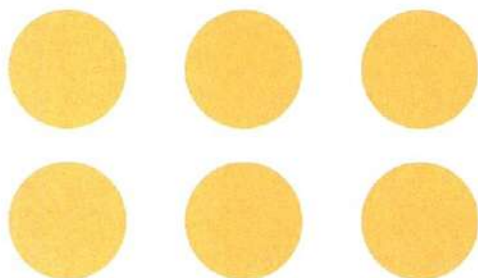
☐ An array ☐ Not an array

b



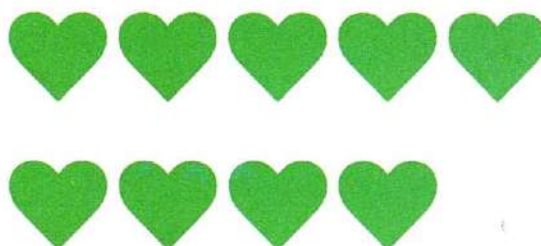
☐ An array ☐ Not an array

c



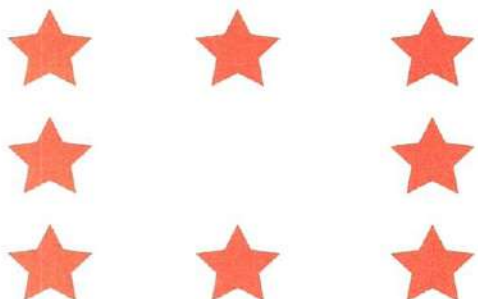
☐ An array ☐ Not an array

d



☐ An array ☐ Not an array

e



☐ An array ☐ Not an array

f



☐ An array ☐ Not an array

## Parents' Tips:

- Encourage your child to learn the difference between an array and a picture.



**Activity 2** Build your own array using the given keys:

a



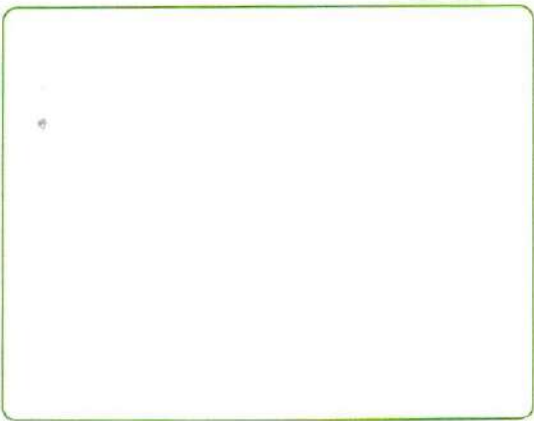
Make an array using 


b



Make an array using 

c



Make an array using 

d



Make an array using 



**I learned**

- The array consists of objects arranged in rows and columns with no gaps.
- The column is going up and down (vertical).
- The row is going from left to right (horizontal).

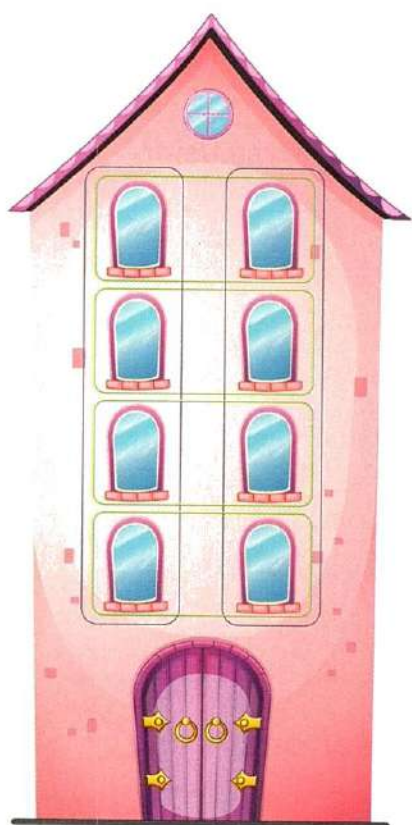




# Forming equations for arrays

How can we find the total number of windows?

I can use **counting**. I have 8 windows.



This array is called

4 by 2.

rows

columns

I can also use **repeated addition**:

- I have 2 columns.

Columns are vertical or going up and down.

$$4 \text{ (window icon)} + 4 \text{ (window icon)} = 8 \text{ (window icon)}$$

- I have 4 rows.

Rows are horizontal or going from left to right.

$$2 \text{ (window icon)} + 2 \text{ (window icon)} + 2 \text{ (window icon)} + 2 \text{ (window icon)} = 8 \text{ (window icon)}$$

Repeated addition means  
we add the same number  
more than once.



## Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the day and the name of the day before and the day after.

**Key words:** Equation - Repeated addition

Activity 1 Complete:

Example

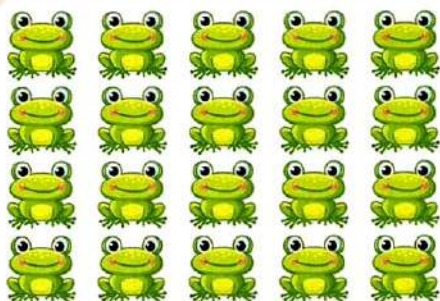


Rows : 3 with equation  $4 + 4 + 4 = 12$

Columns: 4 with equation  $3 + 3 + 3 + 3 = 12$

This array is called 3 by 4

a

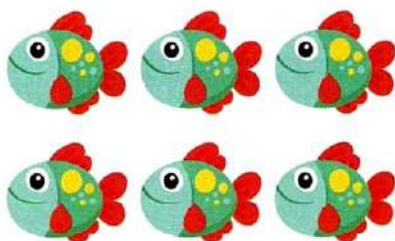


Rows : with equation

Columns: with equation

This array is called by

b



Rows : with equation

Columns: with equation

This array is called by

c



Rows : with equation

Columns: with equation

This array is called by

Parents' Tips:

- Help your child write an equation for arrays using repeated addition.

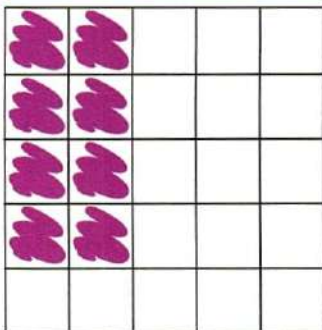


## Activity

2

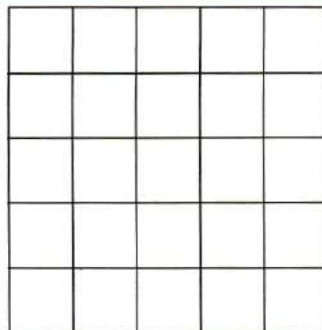
Color the given squares to form an array according to its name using one color:

## Example



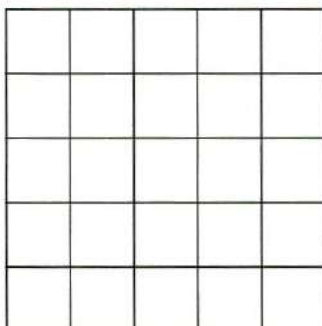
$$4 \text{ by } 2 = \underline{\quad 8 \quad}$$

a



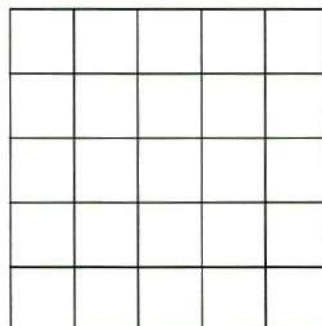
$$5 \text{ by } 1 = \underline{\hspace{2cm}}$$

b



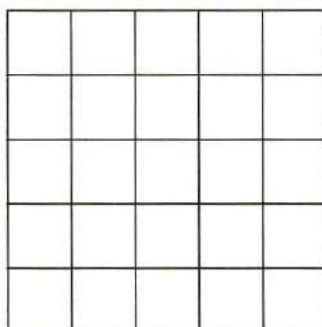
$$3 \text{ by } 3 = \underline{\hspace{2cm}}$$

c



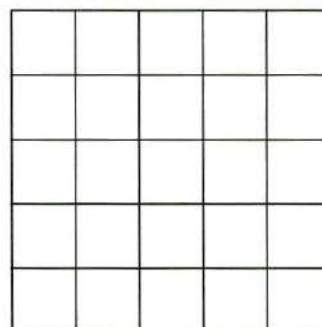
$$2 \text{ by } 5 = \underline{\hspace{2cm}}$$

d



$$5 \text{ by } 5 = \underline{\hspace{2cm}}$$

e



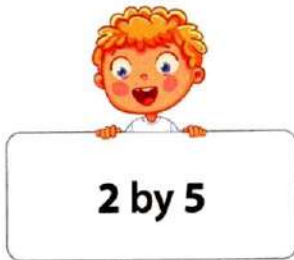
$$3 \text{ by } 2 = \underline{\hspace{2cm}}$$

## Parents' Tips:

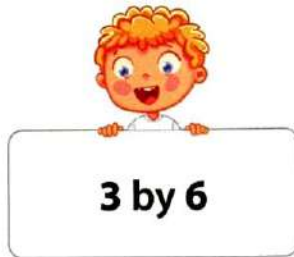
- Ensure that your child can color to form different arrays.

**Activity 3** Match each array with its name:

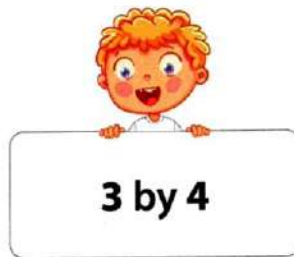
**a**  ☐

☐   
**2 by 5**

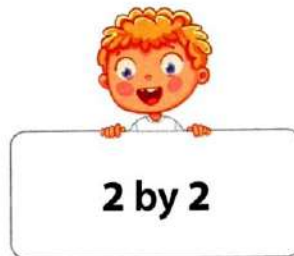
**b**  ☐

☐   
**3 by 6**

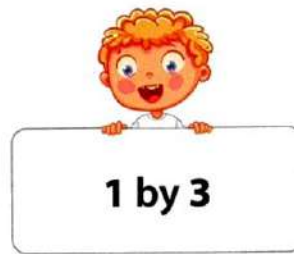
**c**  ☐

☐   
**3 by 4**

**d**  ☐

☐   
**2 by 2**

**e**  ☐

☐   
**1 by 3**

**f**  ☐

☐   
**3 by 2**

**Parents' Tips:**

- Encourage your child to match each array with its name.



**Activity 4** Draw an array for each equation using ♥ or ☆:**Example**

$$5 \text{ rows} = 2 + 2 + 2 + 2 + 2$$

$$2 \text{ columns} = 5 + 5$$

**a**

$$6 \text{ rows} = 3 + 3 + 3 + 3 + 3 + 3$$

$$3 \text{ columns} = 6 + 6 + 6$$

**b**

$$5 \text{ rows} = 3 + 3 + 3 + 3 + 3$$

$$3 \text{ columns} = 5 + 5 + 5$$

**c**

$$3 \text{ rows} = 4 + 4 + 4$$

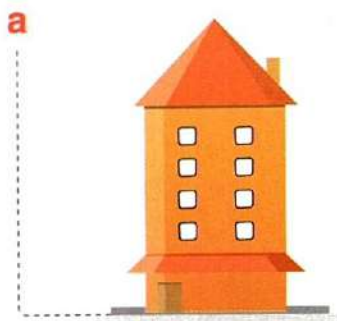
$$4 \text{ columns} = 3 + 3 + 3 + 3$$

**Parents' Tips:**

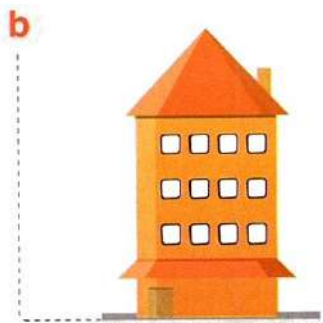
- Encourage your child to draw an array using the given equations.



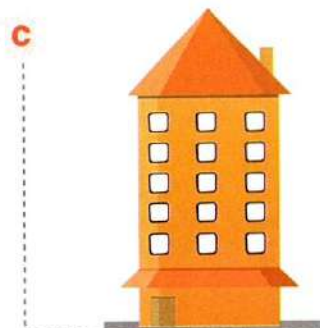
**Activity 5** Write the name of each building array in the following city:



Array: ..... by .....



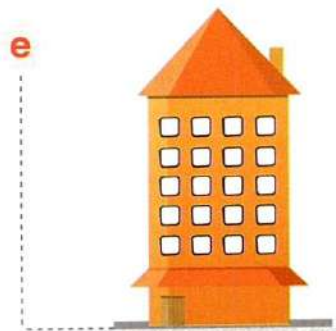
Array: ..... by .....



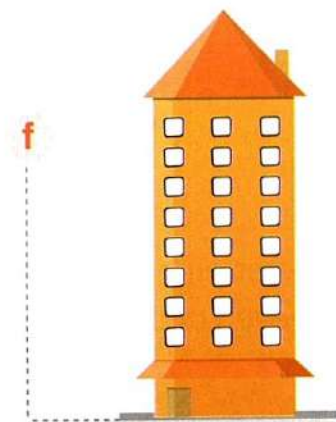
Array: ..... by .....



Array: ..... by .....



Array: ..... by .....



Array: ..... by .....



**I learned**

- Name of the array is.

**2 by 3**

- How to represent repeated addition sentences:

- Equation of rows is

$$3 + 3 = 6$$

- Equation of columns is

$$2 + 2 + 2 = 6$$







# Summary



Determine if a number  
is even or odd number.

Find if the sum of two  
numbers is even or odd:

even + even = even

odd + odd = even

even + odd = odd

Create an array and write its  
repeated addition equation.

Create a numerical pattern  
with more than one rule.

Form a shape pattern using  
a rule.

Create addition (increasing)  
and subtraction (decreasing)  
pattern using different rules.



# General Activities on Chapter 2

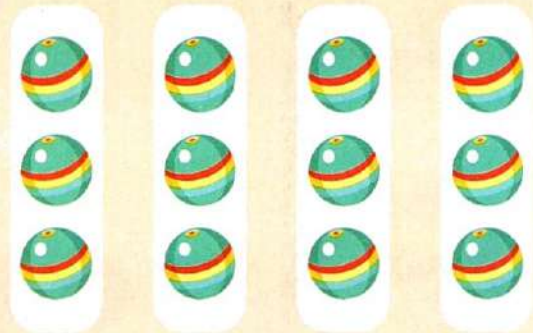
1 Write the name of each array:

a



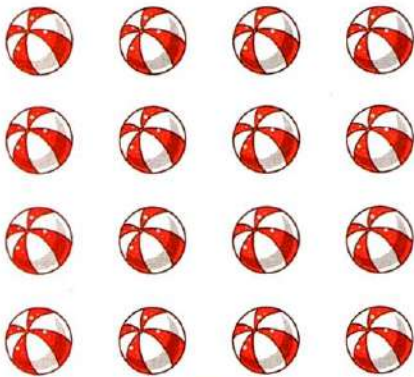
..... by .....

b



..... by .....

c



..... by .....

d



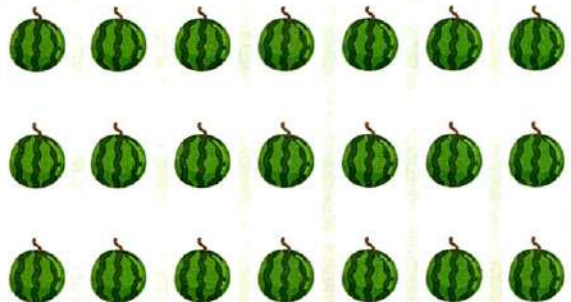
..... by .....

e



..... by .....

f



..... by .....



**2** Complete the following patterns and write their rules:

**a**

Rule:

**b**

Rule:

**c**

Rule:

**d**

Rule:

**e**

Rule:

**f**

Rule:

3 Color the even number in blue ● and the odd number in red ●:

28		44		50
35	19	63	31	16
26	10	7	42	10
	51		34	

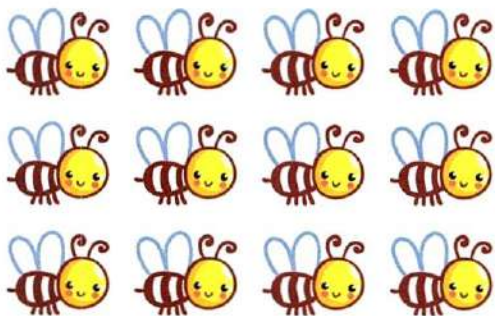
4 Color the correct word "even or odd" for each apple:

<b>a</b>  even odd	<b>b</b>  even odd	<b>c</b>  even odd	<b>d</b>  even odd
<b>e</b>  even odd	<b>f</b>  even odd	<b>g</b>  even odd	<b>h</b>  even odd



## 5 Complete:

a



Rows: .....

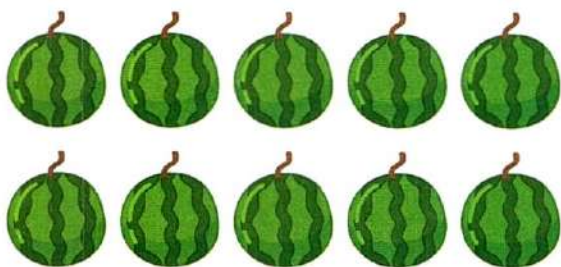
Repeated addition: .....

Columns: .....

Repeated addition: .....

Name: ..... by .....

b



Rows: .....

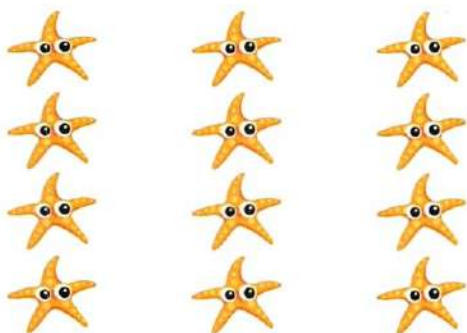
Repeated addition: .....

Columns: .....

Repeated addition: .....

Name: ..... by .....

c



Rows: .....

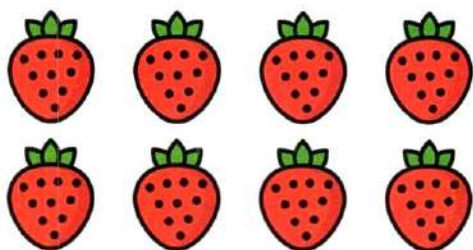
Repeated addition: .....

Columns: .....

Repeated addition: .....

Name: ..... by .....

d



Rows: .....

Repeated addition: .....

Columns: .....

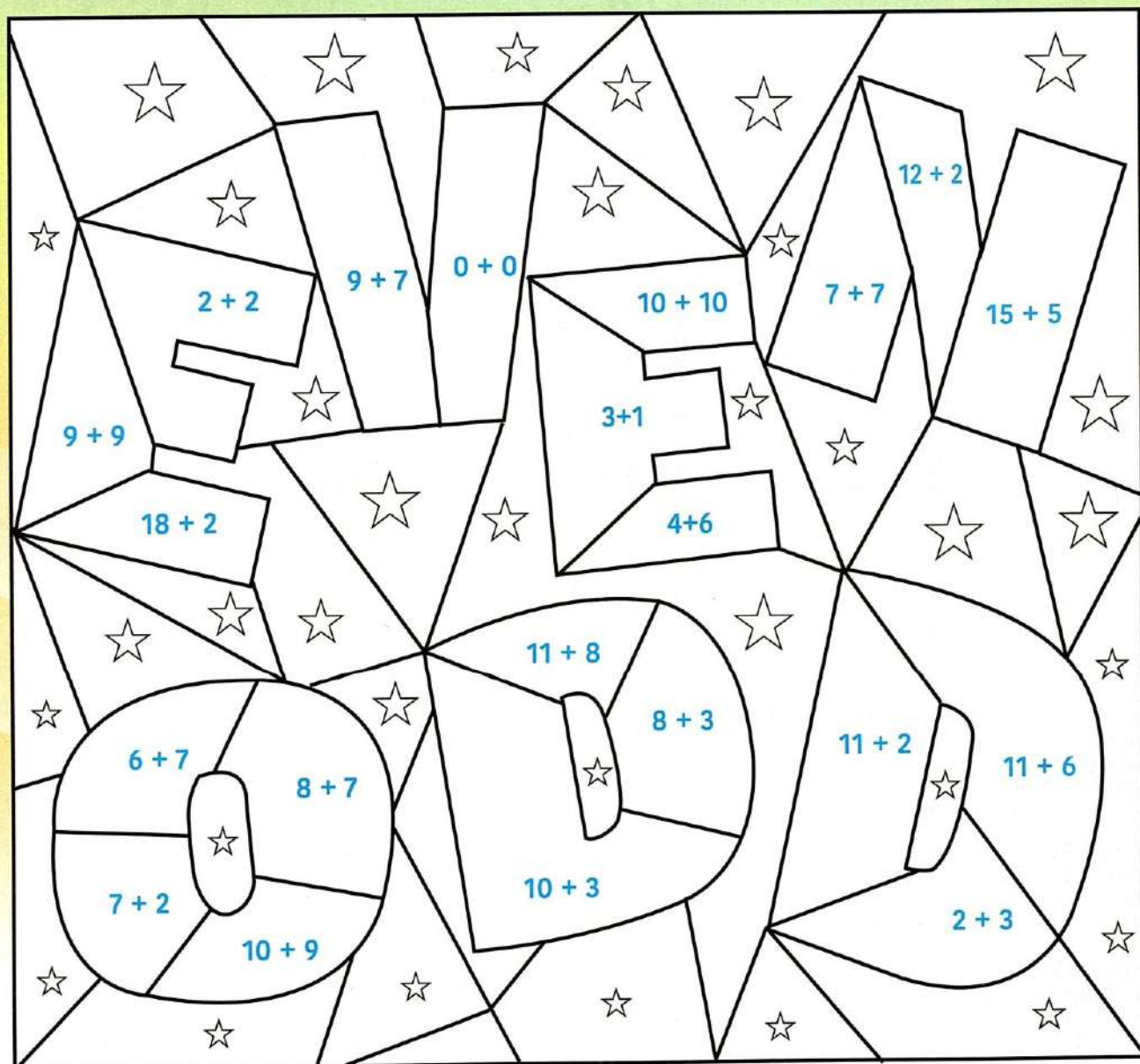
Repeated addition: .....

Name: ..... by .....





Color by code:



Even and odd

Sum is even (red).

Sum is odd (blue).

☆ is (yellow).



# Chapter

3

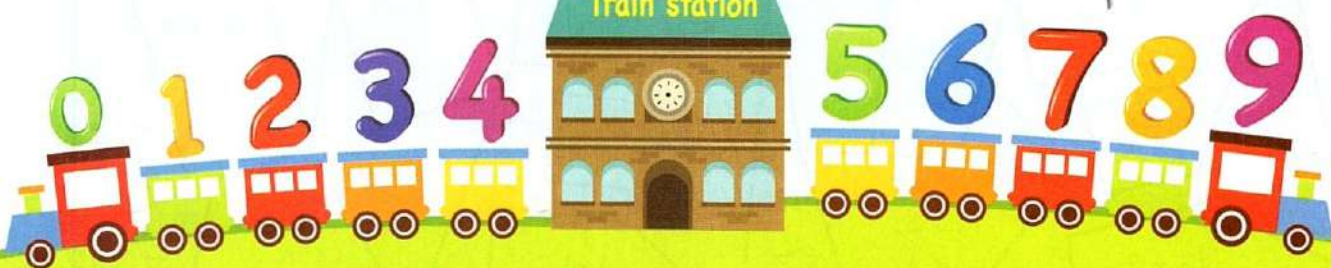


Round Down

Round Up



Train station



## Pacing Guide

**Lesson (81):** Using front-end estimation strategy to add or subtract 2-digit numbers

**Outcomes:**

- Apply strategies to estimate sums and differences.
- Apply front-end estimation strategy.

**Lesson (82):** Using rounding strategy to the nearest ten to add or subtract 2-digit numbers

**Outcomes:**

- Round 2-digit numbers to the nearest ten.
- Round two 2-digit numbers to estimate their sum.

**Lesson (83):** Using estimation strategies to add or subtract 3-digit numbers

**Outcomes:**

- Estimate sums and differences using front-end strategy.
- Round 3-digit numbers to the nearest hundred using rounding strategy.

**Lessons (84 & 85):** Using place value mat to add 2-digit numbers with regrouping ones

**Outcomes:**

- Add 2-digit numbers with regrouping.
- Learn why it is sometimes necessary to regroup to solve problems.
- Use place value mat to regroup and add.

**Lessons (86 & 87):** Using place value mat to add 2-digit numbers with regrouping tens

**Outcomes:**

- Add two 2-digit numbers with regrouping.
- Use place value mat to regroup and add.

**Lesson (88):** Using place value mat to add 3-digit numbers with regrouping

**Outcomes:**

- Add two 3-digit numbers with regrouping.
- Use place value mat to regroup and add.

**Lesson (89):** (A) Adding 2-digit numbers with regrouping

**Outcomes:**

- Add 2 digit numbers with regrouping.

(B) Adding 3-digit numbers with regrouping

**Outcomes:**

- Make connections between concrete and abstract models of regrouping.
- Add 3-digit numbers with regrouping.

**Lesson (90):** Detecting errors (identify and fix errors)

**Outcomes:**

- Identify and correct errors in estimation and regrouping problems.



Sally can you help me  
to estimate the sum  
of these cards.

Oh. I don't know how.

253

173

Let's know how to estimate  
numbers and find the estimation  
sum in this chapter.





# Using front-end estimation strategy to add or subtract 2-digit numbers

## How to estimate the addition of:

Tens	Ones		Tens	Ones
3	2	+	5	6
<b>30</b>			<b>50</b>	

To estimate the addition of  $32 + 56$ , we can use the front-end estimation:

### First

Look at the front place of the number which is **tens**.

### Second

We are going to think of **32** as **30** and **56** as **50**.

Mentally, adding  $30 + 50$  is **80**



$$30 + 50$$

My estimation sum is **80**.



- **80** is not the actual answer, it's my estimation.
- The actual answer of  $32 + 56$  is **88**.
- So, my estimation is less than the actual answer.

### Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the day and the name of the day before and the day after.

**Key words:** Front-end strategy - Estimation - Actual answer - Sum - Mentally - Less than



## How to estimate the subtraction of:

Tens	Ones		Tens	Ones
8	4	—	3	7
80			30	

### First

Look at the front place of the number which is tens.

### Second

We are going to think of 84 as 80 and 37 as 30.

Mentally, subtracting 80 – 30 is 50

$$80 - 30$$

My estimation difference is 50.



- 50 is not the actual answer, it's my estimation.
- The actual answer of 84 – 37 is 47.
- So, my estimation is more than the actual answer.

### Parents' Tips:

- Help your child learn how to estimate addition and subtraction of two-digit numbers.

**Key words:** More than - Difference



**Activity 1** Use the front-end estimation to add or subtract:

**Example**

Actual	Estimated
$\begin{array}{r} 64 \\ + 22 \\ \hline \end{array}$	$\begin{array}{r} 60 \\ + 20 \\ \hline \end{array}$
86	80

Actual	Estimated
$\begin{array}{r} 76 \\ - 52 \\ \hline \end{array}$	$\begin{array}{r} 70 \\ - 50 \\ \hline \end{array}$
24	20

**a**

Actual	Estimated
$\begin{array}{r} 35 \\ + 31 \\ \hline \end{array}$	$\begin{array}{r} \square \\ + \square \\ \hline \end{array}$
<input type="text"/>	<input type="text"/>

**b**

Actual	Estimated
$\begin{array}{r} 67 \\ + 11 \\ \hline \end{array}$	$\begin{array}{r} \square \\ + \square \\ \hline \end{array}$
<input type="text"/>	<input type="text"/>

**c**

Actual	Estimated
$\begin{array}{r} 65 \\ - 15 \\ \hline \end{array}$	$\begin{array}{r} \square \\ - \square \\ \hline \end{array}$
<input type="text"/>	<input type="text"/>

**d**

Actual	Estimated
$\begin{array}{r} 93 \\ - 44 \\ \hline \end{array}$	$\begin{array}{r} \square \\ - \square \\ \hline \end{array}$
<input type="text"/>	<input type="text"/>

**e**

Actual	Estimated
$\begin{array}{r} 51 \\ - 29 \\ \hline \end{array}$	$\begin{array}{r} \square \\ - \square \\ \hline \end{array}$
<input type="text"/>	<input type="text"/>

**f**

Actual	Estimated
$\begin{array}{r} 28 \\ + 74 \\ \hline \end{array}$	$\begin{array}{r} \square \\ + \square \\ \hline \end{array}$
<input type="text"/>	<input type="text"/>

**g**

Actual	Estimated
$\begin{array}{r} 72 \\ + 18 \\ \hline \end{array}$	$\begin{array}{r} \square \\ + \square \\ \hline \end{array}$
<input type="text"/>	<input type="text"/>

**h**

Actual	Estimated
$\begin{array}{r} 92 \\ - 27 \\ \hline \end{array}$	$\begin{array}{r} \square \\ - \square \\ \hline \end{array}$
<input type="text"/>	<input type="text"/>

**i**


Actual	Estimated
$\begin{array}{r} 38 \\ + 54 \\ \hline \end{array}$	$\begin{array}{r} \square \\ + \square \\ \hline \end{array}$
<input type="text"/>	<input type="text"/>

**Parents' Tips:**

- Encourage your child to solve some problems about sums and differences of 2-digit numbers.

**Activity 2** Complete, then match each problem with its suitable estimation:


If your estimation is more than the actual sum color the bone with red if it is less than color it with blue.

a 

$$\begin{array}{r} 78 + 32 \\ + \\ \hline \end{array}$$

Actual sum =


☐ 40

b 

$$\begin{array}{r} 49 - 38 \\ - \\ \hline \end{array}$$

Actual sum =


☐ 80

c 

$$\begin{array}{r} 57 + 32 \\ + \\ \hline \end{array}$$

Actual sum =


☐ 60

d 

$$\begin{array}{r} 63 - 18 \\ - \\ \hline \end{array}$$

Actual sum =


☐ 50

e 

$$\begin{array}{r} 35 + 11 \\ + \\ \hline \end{array}$$

Actual sum =

☐ 10

f 

$$\begin{array}{r} 94 - 31 \\ - \\ \hline \end{array}$$

Actual sum =

☐ 100

**Parents' Tips:**

- Ensure that your child can use front-end estimation strategy to add and subtract 2-digit numbers.



## Activity 3

Use the front-end strategy to estimate each of the following:

a

$$82 + 34$$

+

is \_\_\_\_\_

b

$$63 - 28$$

-

is \_\_\_\_\_

c

$$59 + 36$$

+

is \_\_\_\_\_

d

$$74 - 43$$

-

is \_\_\_\_\_

e

$$46 + 23$$

+

is \_\_\_\_\_

f

$$91 - 36$$

-

is \_\_\_\_\_

g

$$19 + 25$$

+

is \_\_\_\_\_

h

$$66 - 52$$

-

is \_\_\_\_\_

i

$$39 + 21$$

+

is \_\_\_\_\_

j

$$97 - 42$$

-

is \_\_\_\_\_

k

$$58 + 48$$

+

is \_\_\_\_\_

l

$$79 - 17$$

-

is \_\_\_\_\_



## I learned

- How to estimate the addition and subtraction problems using the front-end strategy.



# Using rounding strategy to the nearest ten to add or subtract 2-digit numbers

How can we round a number to the nearest ten?



0	1	2	3	4	5	6	7	8	9	10
10	11	12	13	14	15	16	17	18	19	20
20	21	22	23	24	25	26	27	28	29	30
30	31	32	33	34	35	36	37	38	39	40
40	41	42	43	44	45	46	47	48	49	50
50	51	52	53	54	55	56	57	58	59	60
60	61	62	63	64	65	66	67	68	69	70
70	71	72	73	74	75	76	77	78	79	80
80	81	82	83	84	85	86	87	88	89	90
90	91	92	93	94	95	96	97	98	99	100

Down

Up

To round a 2-digit number to the nearest ten, we look at the ones place and think about which tens number we are closest to.

To round 42 and 48 to the nearest ten:

## First

Put a circle around ones place.

48

42

## Second

If the ones place is 5 or more than 5, it will be closest to 50

So, 48 is rounded up to 50

## Third

If the ones place is 4 or less, it will be closest to 40

So, 42 is rounded down to 40

### Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Encourage your child to count the number of days he/she spent in school and draw a circle around it on the 120 chart.

**Key words:** Rounding - Estimation - closest



## Activity 1

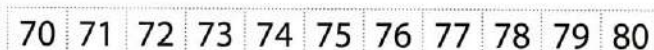
Use the previous chart to round each number to the nearest ten:

## Example

95 is close to 100



a 74 is close to \_\_\_\_\_



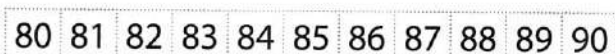
b 68 is close to \_\_\_\_\_



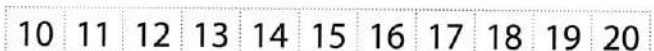
c 21 is close to \_\_\_\_\_



d 83 is close to \_\_\_\_\_



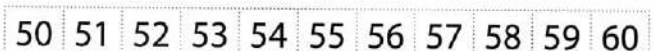
e 18 is close to \_\_\_\_\_



f 77 is close to \_\_\_\_\_



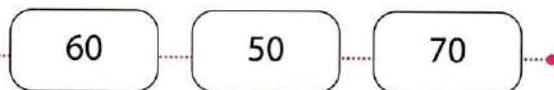
g 52 is close to \_\_\_\_\_



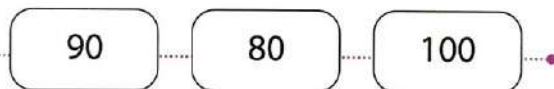
## Activity 2

Color the correct estimation by using rounding strategy:

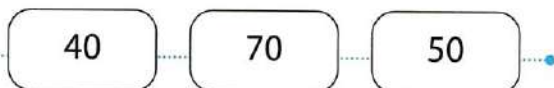
a 63 is close to \_\_\_\_\_



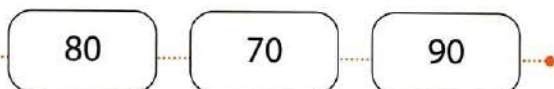
b 99 is close to \_\_\_\_\_



c 47 is close to \_\_\_\_\_



d 82 is close to \_\_\_\_\_



## Parents' Tips:

- Help your child learn how to round numbers to the nearest ten.

**Activity 3** Estimate to add and subtract using rounding strategy:

**Example**

$$36 + 24$$

36 is rounded up to 40  
24 is rounded down to 20  
 $40 + 20 = 60$   
The estimated sum is 60

$$67 - 19$$

67 is rounded up to 70  
19 is rounded up to 20  
 $70 - 20 = 50$   
The estimated difference is 50



**a**

$$28 + 13$$

28 is rounded ..... to .....  
13 is rounded ..... to .....  
The estimated sum is .....



**b**

$$81 - 59$$

81 is rounded ..... to .....  
59 is rounded ..... to .....  
The estimated difference is .....



**c**

$$76 - 34$$

76 is rounded ..... to .....  
34 is rounded ..... to .....  
The estimated difference is .....



**d**

$$44 + 35$$

44 is rounded ..... to .....  
35 is rounded ..... to .....  
The estimated sum is .....



**e**

$$65 + 19$$

65 is rounded ..... to .....  
19 is rounded ..... to .....  
The estimated sum is .....



**f**

$$92 - 81$$

92 is rounded ..... to .....  
81 is rounded ..... to .....  
The estimated difference is .....

**Parents' Tips:**

- Encourage your child to estimate some problems of addition and subtraction.



## Activity

4

Estimate the sum and the difference using rounding strategy:

## Example

$$\begin{array}{r} 58 + 24 \\ \downarrow \quad \downarrow \\ 60 + 20 \text{ is } 80 \end{array}$$

$$\begin{array}{r} 83 - 26 \\ \downarrow \quad \downarrow \\ 80 - 30 \text{ is } 50 \end{array}$$

a

$$\begin{array}{r} 67 + 18 \\ + \quad \quad \quad \text{is } \end{array}$$

b

$$\begin{array}{r} 95 - 13 \\ - \quad \quad \quad \text{is } \end{array}$$

c

$$\begin{array}{r} 21 + 73 \\ + \quad \quad \quad \text{is } \end{array}$$

d

$$\begin{array}{r} 71 - 22 \\ - \quad \quad \quad \text{is } \end{array}$$

e

$$\begin{array}{r} 34 + 11 \\ + \quad \quad \quad \text{is } \end{array}$$

f

$$\begin{array}{r} 82 - 69 \\ - \quad \quad \quad \text{is } \end{array}$$

g

$$\begin{array}{r} 49 + 43 \\ + \quad \quad \quad \text{is } \end{array}$$

h

$$\begin{array}{r} 54 - 39 \\ - \quad \quad \quad \text{is } \end{array}$$

## Parents' Tips:

- Ensure that your child can use estimation to add and subtract 2-digit numbers.

Activity

5

Estimate the difference and the sum using rounding to the nearest ten:

Example

Actual		Estimated
$\begin{array}{r} 78 \\ - 14 \\ \hline \end{array}$	→	$\begin{array}{r} 80 \\ - 10 \\ \hline 70 \end{array}$

a	Actual		Estimated
	$\begin{array}{r} 81 \\ - 65 \\ \hline \end{array}$	→	<div style="border: 1px solid black; padding: 10px; width: 80px; height: 100px; margin: 0 auto;"></div>

b	Actual		Estimated
	$\begin{array}{r} 44 \\ + 27 \\ \hline \end{array}$	→	<div style="border: 1px solid black; padding: 10px; width: 80px; height: 100px; margin: 0 auto;"></div>

c	Actual		Estimated
	$\begin{array}{r} 42 \\ + 36 \\ \hline \end{array}$	→	<div style="border: 1px solid black; padding: 10px; width: 80px; height: 100px; margin: 0 auto;"></div>

d	Actual		Estimated
	$\begin{array}{r} 82 \\ + 18 \\ \hline \end{array}$	→	<div style="border: 1px solid black; padding: 10px; width: 80px; height: 100px; margin: 0 auto;"></div>

e	Actual		Estimated
	$\begin{array}{r} 97 \\ - 58 \\ \hline \end{array}$	→	<div style="border: 1px solid black; padding: 10px; width: 80px; height: 100px; margin: 0 auto;"></div>

f	Actual		Estimated
	$\begin{array}{r} 68 \\ - 31 \\ \hline \end{array}$	→	<div style="border: 1px solid black; padding: 10px; width: 80px; height: 100px; margin: 0 auto;"></div>

g	Actual		Estimated
	$\begin{array}{r} 53 \\ - 24 \\ \hline \end{array}$	→	<div style="border: 1px solid black; padding: 10px; width: 80px; height: 100px; margin: 0 auto;"></div>

h	Actual		Estimated
	$\begin{array}{r} 73 \\ + 11 \\ \hline \end{array}$	→	<div style="border: 1px solid black; padding: 10px; width: 80px; height: 100px; margin: 0 auto;"></div>



I learned

- How to use the rounding strategy to estimate the sum & the difference by rounding each number to the nearest ten.





# Using estimation strategies to add or subtract 3-digit numbers



How can we estimate the sum of  $120 + 370$  using different strategies?

## First

### Front-end strategy

- Look at the front place of the number which is the hundreds place.

$$\begin{array}{c} \text{H} \quad \text{T} \quad \text{O} \\ \textcircled{1} \text{20} + \textcircled{3} \text{70} \end{array}$$

- **120** we think about it as **100**.
- **370** we think about it as **300**.

So, the estimated sum is  
 $100 + 300 = 400$ .

## Second

### Rounding strategy

$$\begin{array}{c} \text{H} \quad \text{T} \quad \text{O} \quad \quad \text{H} \quad \text{T} \quad \text{O} \\ \textcircled{1} \text{20} + \textcircled{3} \text{70} \end{array}$$

- **120** is **rounded down** to **100**. (to the nearest hundreds)  
Because the number in the tens place is **less than 5**.
- **370** is **rounded up** to **400**. (to the nearest hundreds)  
Because the number in the tens place is **more than 5**.

So, the estimated sum is  
 $100 + 400 = 500$ .

Actual sum is

$$120 + 370 = 490$$

So, rounding strategy gives us an estimation which is more close to the actual sum than the front-end strategy.

### Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the day and the name of the month.

**Key words:** Estimation - Actual sum - Close to





## How can we estimate the difference of $890 - 210$ using different strategies?

### First

#### Front-end strategy

- Look at the front place of the number which is the hundreds place.

$$\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \quad \quad \text{H} \quad \text{T} \quad \text{O} \\ 890 - 210 \end{array}$$

- 890 we think about it as 800.
- 210 we think about it as 200.

So, the estimated difference is  
 $800 - 200 = 600$

### Second

#### Rounding strategy

$$\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \quad \quad \text{H} \quad \text{T} \quad \text{O} \\ 890 - 210 \end{array}$$

- 890 is **rounded up** to 900 (to the nearest hundreds)  
Because the number in the tens place is **more than 5**.
- 210 is **rounded down** to 200 (to the nearest hundreds)  
Because the number in the tens place is **less than 5**.

So, the estimated difference is  
 $900 - 200 = 700$

Actual difference is

$$890 - 210 = 680$$

So, rounding strategy gives us an estimation which is closer to the actual difference than the front-end strategy.

#### Parents' Tips:

- Help your child learn how to use rounding strategy for addition and subtraction.





## Activity

1

Estimate to add or subtract using 2 different strategies:

## Example

$$215 + 582$$

Front-end estimation

$$200 + 500 \text{ is } 700$$

Rounding estimation

$$200 + 600 \text{ is } 800$$

$$652 - 345$$

Front-end estimation

$$600 - 300 \text{ is } 300.$$

Rounding estimation

$$700 - 300 \text{ is } 400.$$

a  $453 - 126$

Front-end estimation

$$\dots - \dots \text{ is } \dots$$

Rounding estimation

$$\dots - \dots \text{ is } \dots$$

b  $672 + 193$

Front-end estimation

$$\dots + \dots \text{ is } \dots$$

Rounding estimation

$$\dots + \dots \text{ is } \dots$$

c  $564 - 336$

Front-end estimation

$$\dots - \dots \text{ is } \dots$$

Rounding estimation

$$\dots - \dots \text{ is } \dots$$

d  $112 + 565$

Front-end estimation

$$\dots + \dots \text{ is } \dots$$

Rounding estimation

$$\dots + \dots \text{ is } \dots$$

e  $815 - 434$

Front-end estimation

$$\dots - \dots \text{ is } \dots$$

Rounding estimation

$$\dots - \dots \text{ is } \dots$$

f  $768 + 141$

Front-end estimation

$$\dots + \dots \text{ is } \dots$$

Rounding estimation

$$\dots + \dots \text{ is } \dots$$

g  $552 - 463$

Front-end estimation

$$\dots - \dots \text{ is } \dots$$

Rounding estimation

$$\dots - \dots \text{ is } \dots$$

h  $374 + 185$

Front-end estimation

$$\dots + \dots \text{ is } \dots$$

Rounding estimation

$$\dots + \dots \text{ is } \dots$$

i  $829 - 230$

Front-end estimation

$$\dots - \dots \text{ is } \dots$$

Rounding estimation

$$\dots - \dots \text{ is } \dots$$

## Parents' Tips:

- Encourage your child to solve some problems about adding and subtracting 3-digit numbers using the front-end estimation and rounding.

**Activity 2** Use the rounding strategy to add or subtract:

**a**

$$\begin{array}{r} + 545 \\ 251 \\ \hline \end{array} \rightarrow \begin{array}{r} + \\ \hline \end{array}$$

**b**

$$\begin{array}{r} 39 \\ + 26 \\ \hline \end{array} \rightarrow \begin{array}{r} + \\ \hline \end{array}$$

**c**

$$\begin{array}{r} 886 \\ - 123 \\ \hline \end{array} \rightarrow \begin{array}{r} - \\ \hline \end{array}$$

**d**

$$\begin{array}{r} - 631 \\ 382 \\ \hline \end{array} \rightarrow \begin{array}{r} - \\ \hline \end{array}$$

**e**

$$\begin{array}{r} 143 \\ + 674 \\ \hline \end{array} \rightarrow \begin{array}{r} + \\ \hline \end{array}$$

**f**

$$\begin{array}{r} 855 \\ - 766 \\ \hline \end{array} \rightarrow \begin{array}{r} - \\ \hline \end{array}$$

**g**  $68 - 34$

-  is

**h**  $93 - 24$

-  is

**i**  $719 - 320$

-  is

**j**  $402 + 514$

+  is

**k**  $529 + 256$

+  is

**l**  $16 + 18$

+  is

**Parents' Tips:**

- Ensure that your child can use rounding strategy to add and subtract 2 numbers.



**Activity 3** Estimate, then write the actual sum or difference:

a

$$\begin{array}{r} 145 \\ + 325 \\ \hline \end{array}$$

Front-end  
estimation  
.....Rounding  
Estimation  
.....Actual  
.....

b

$$\begin{array}{r} 309 \\ + 381 \\ \hline \end{array}$$

Front-end  
estimation  
.....Rounding  
Estimation  
.....Actual  
.....

c

$$\begin{array}{r} 455 \\ - 213 \\ \hline \end{array}$$

Front-end  
estimation  
.....Rounding  
Estimation  
.....Actual  
.....

d

$$\begin{array}{r} 622 \\ - 166 \\ \hline \end{array}$$

Front-end  
estimation  
.....Rounding  
Estimation  
.....Actual  
.....**I learned**

- How to estimate addition and subtraction of 3-digit numbers using different strategies (front-end strategy and rounding strategy).

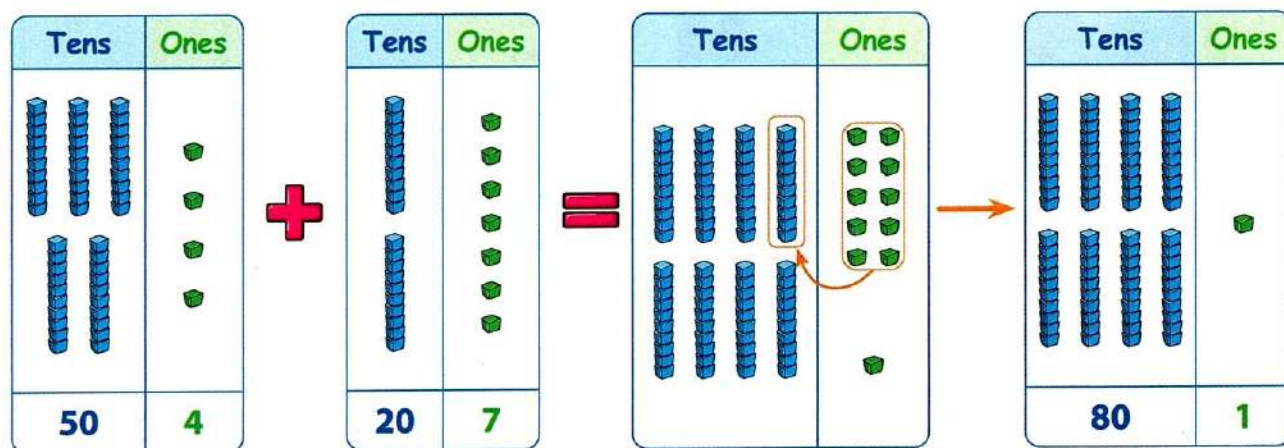




# Using place value mat to add 2-digit numbers with regrouping ones

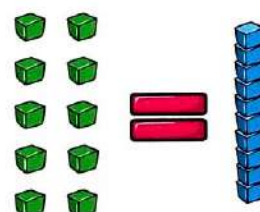
To find the sum of  $54 + 27$ , we will use the place value mat.

$$54 + 27 = 81$$



**Notice that:**

- We regroup 10 ones as 1 ten.



When the sum of the ones is bigger than 9, we regroup 10 ones as 1 ten and we move it to the tens place.

## Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the day and the name of the day before and the day after.



**Key words:** Place value mat - Regrouping - Bigger - Sum


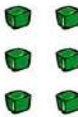


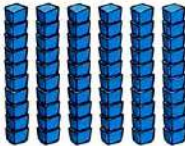

**Activity 1** Add each of the following using the place value mat:

**Example**

$$35 + 26 = 61$$



Tens	Ones
	
30	5



Tens	Ones
	
20	6

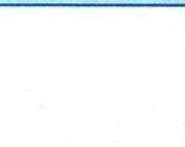

Tens	Ones
	
60	1

a

$$59 + 34 = \boxed{\phantom{00}}$$



Tens	Ones
	



Tens	Ones
	



Tens	Ones
	

b

$$72 + 19 = \boxed{\phantom{00}}$$

Tens	Ones
	

Tens	Ones
	

Tens	Ones
	

**Parents' Tips:**

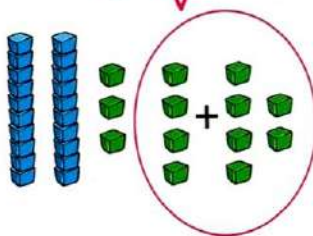
- Help your child learn how to use the place value to add 2-digit numbers.

**Activity 2** Add each of the following:

**Example**

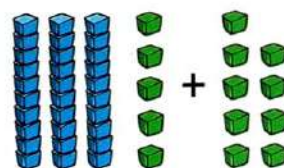
10 ones = 1 ten

Tens	Ones
2	7
+	6
3	3



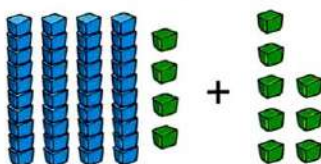
a

Tens	Ones
3	5
+	9



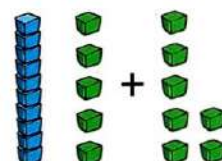
b

Tens	Ones
4	4
+	8



c

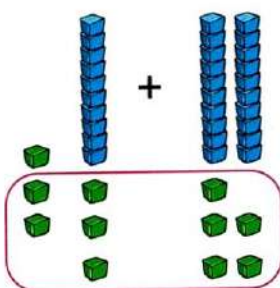
Tens	Ones
1	5
+	7



**Activity 3** Add each of the following:

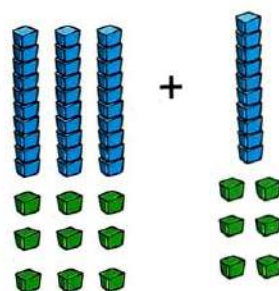
**Example**

Tens	Ones
1	6
+	5
4	1



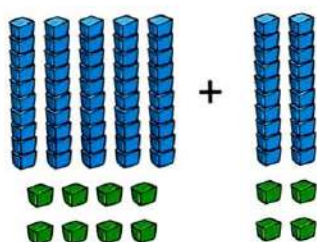
a

Tens	Ones
3	9
+	6



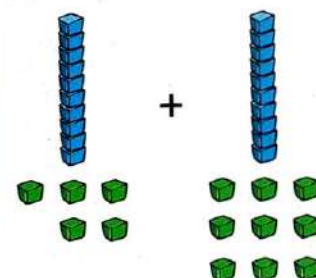
b

Tens	Ones
5	8
+	4



c

Tens	Ones
1	5
+	9



**Parents' Tips:**

- Encourage your child to solve some problems about adding 2-digit numbers with regrouping.



## Activity 4

Add each of the following:

$$\begin{array}{r} \text{a} \quad 45 \\ + \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b} \quad 19 \\ + \quad 16 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c} \quad 37 \\ + \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d} \quad 28 \\ + \quad 46 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e} \quad 58 \\ + \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f} \quad 89 \\ + \quad 11 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g} \quad 38 \\ + \quad 26 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h} \quad 43 \\ + \quad 18 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i} \quad 21 \\ + \quad 69 \\ \hline \end{array}$$

$$\begin{array}{r} \text{j} \quad 88 \\ + \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{k} \quad 37 \\ + \quad 28 \\ \hline \end{array}$$

$$\begin{array}{r} \text{l} \quad 57 \\ + \quad 39 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m} \quad 67 \\ + \quad 15 \\ \hline \end{array}$$

$$\begin{array}{r} \text{n} \quad 47 \\ + \quad 28 \\ \hline \end{array}$$

$$\begin{array}{r} \text{o} \quad 29 \\ + \quad 17 \\ \hline \end{array}$$

$$\begin{array}{r} \text{p} \quad 29 \\ + \quad 48 \\ \hline \end{array}$$

$$\begin{array}{r} \text{q} \quad 39 \\ + \quad 5 \\ \hline \end{array}$$

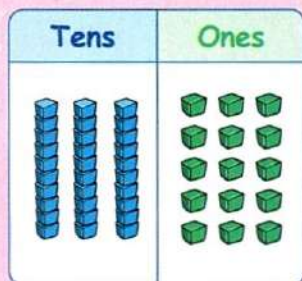
$$\begin{array}{r} \text{r} \quad 88 \\ + \quad 7 \\ \hline \end{array}$$



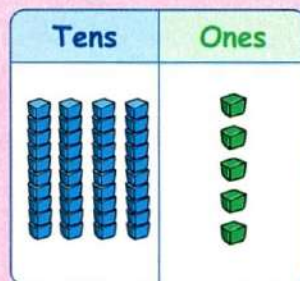
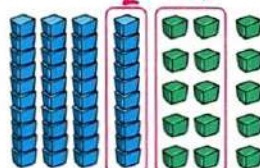
## I learned

- How to add two numbers with regrouping ones.
- How to regroup 10 ones as 1 ten.

Regroup 10 ones as 1 ten.



$$3 \text{ tens} + 15 \text{ ones} = 45$$



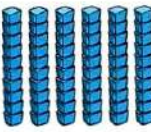

$$4 \text{ tens} + 5 \text{ ones} = 45$$



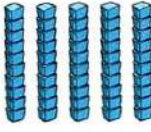

# Using place value mat to add 2-digit numbers with regrouping tens

To add  $64 + 53$  using the place value mat:


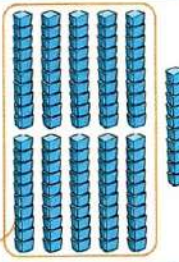

$$64 + 53 = 117$$

Tens	Ones
	
60	4

+

Tens	Ones
	
50	3

=

Hundreds	Tens	Ones
		
100	10	7

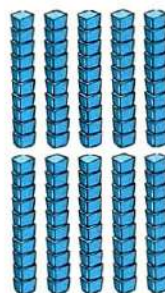


When the sum of the tens is bigger than 9, we regroup **10** tens as **1** hundred and we move this new group to the hundreds place.



Notice that:

- We regroup **10** tens as **1** hundred.
- We can draw a large square to represent one hundred.



=



## Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Help your child count the number of days he/she spent in school and draw a circle around it on the 120 chart.



**Key words:** Place value mat - Regrouping



**Activity 1** Add each of the following:

**Example**




$$32 + 91 = 123$$

Tens	Ones
	
30	2

+

Tens	Ones
	
90	1

=

Hundreds	Tens	Ones
		
100	20	3

a  $74 + 52 =$

Tens	Ones

+

Tens	Ones

=

Hundreds	Tens	Ones

b  $84 + 45 =$

Tens	Ones

+

Tens	Ones

=

Hundreds	Tens	Ones

**Parents' Tips:**




- Help your child learn how to use the place value mat to add 2-digit numbers.



**Activity 2** Add each of the following, then match:



**Example**

	Hundreds	Tens	Ones
+		7	2
		4	3
	1	1	5

Hundreds	Tens	Ones
		
100	20	3




**a**

	Hundreds	Tens	Ones
+		6	3
		7	4

Hundreds	Tens	Ones
		
100	0	8




**b**

	Hundreds	Tens	Ones
+		4	6
		6	2

Hundreds	Tens	Ones
		
100	+	10
	+	5

**c**

	Hundreds	Tens	Ones
+		8	1
		4	2

Hundreds	Tens	Ones
		
100	+	30
	+	7

**Parents' Tips:**

- Encourage your child to solve some problems about adding two numbers using the place value mat.



## Activity

3

Add each of the following:

a  $\begin{array}{r} 16 \\ + 93 \\ \hline \end{array}$

b  $\begin{array}{r} 72 \\ + 41 \\ \hline \end{array}$

c  $\begin{array}{r} 59 \\ + 80 \\ \hline \end{array}$

d  $\begin{array}{r} 68 \\ + 90 \\ \hline \end{array}$

e  $\begin{array}{r} 52 \\ + 97 \\ \hline \end{array}$

f  $\begin{array}{r} 87 \\ + 82 \\ \hline \end{array}$

g  $\begin{array}{r} 26 \\ + 93 \\ \hline \end{array}$

h  $\begin{array}{r} 35 \\ + 71 \\ \hline \end{array}$

i  $\begin{array}{r} 42 \\ + 83 \\ \hline \end{array}$

j  $\begin{array}{r} 94 \\ + 45 \\ \hline \end{array}$

k  $12 + 90 =$

l  $43 + 63 =$

m  $51 + 90 =$

n  $92 + 44 =$

o  $70 + 86 =$

p  $71 + 95 =$

q  $66 + 81 =$

r  $23 + 96 =$

s  $71 + 80 =$

t  $51 + 57 =$



## I learned


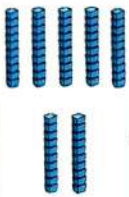

- How to add two numbers with regrouping tens.
- How to regroup 10 tens as 1 hundred.






# Using place value mat to add 3-digit numbers with regrouping

How can we add  $176 + 235$ ?




$$176 + 235 = 411$$

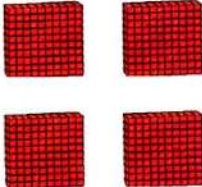


Hundreds	Tens	Ones
		
100	70	6

+

Hundreds	Tens	Ones
		
200	30	5

=

Hundreds	Tens	Ones
		

Hundreds	Tens	Ones
		
4	1	1

$$400 + 10 + 1 = 411$$

- We regroup 10 ones as 1 ten.
- We regroup 10 tens as 1 hundred.



## Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the day and the name of the day before and the day after.

**Key words:** Place value mat - Regroup

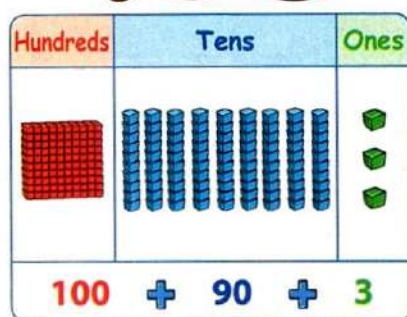


## Activity 1

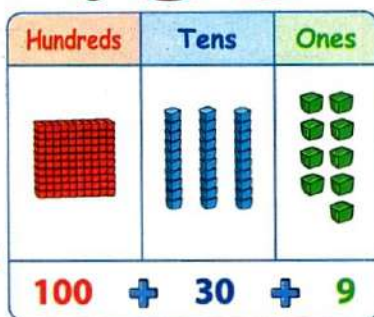
Solve the following problems:

## Example

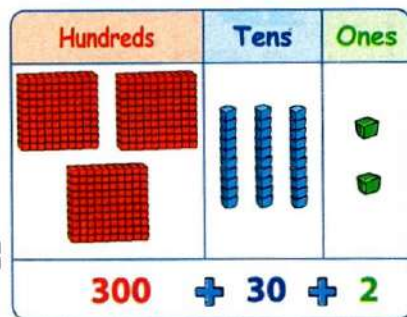
$$193 + 139 = 332$$



+

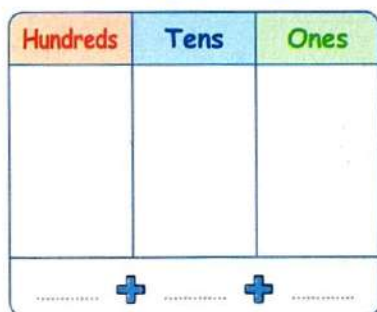


=

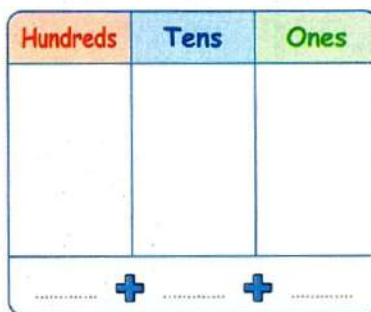


a

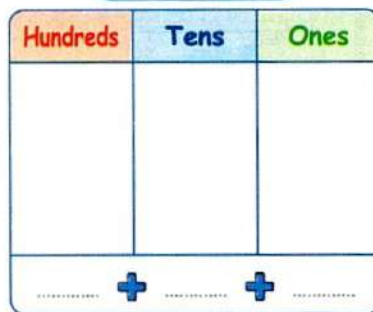
$$185 + 146 = \boxed{\phantom{000}}$$



+

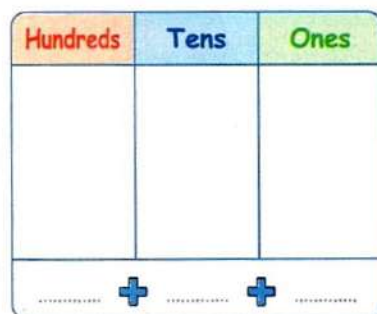


=

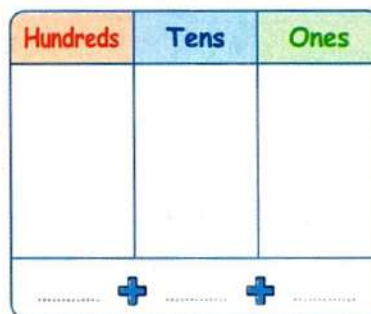


b

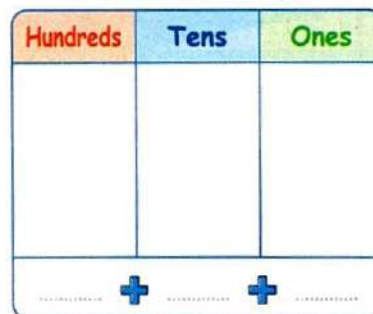
$$242 + 179 = \boxed{\phantom{000}}$$



+



=

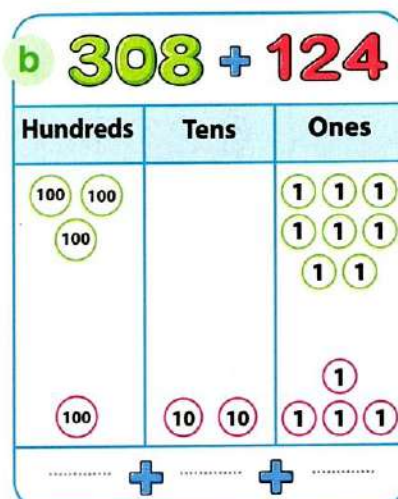
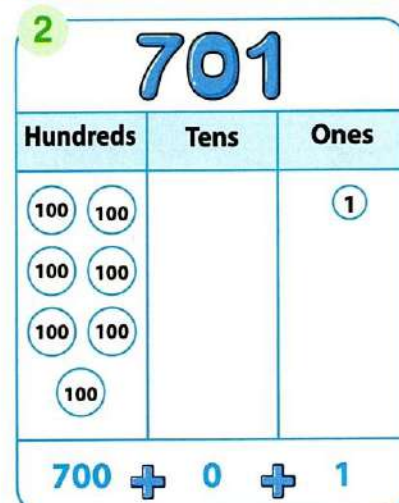
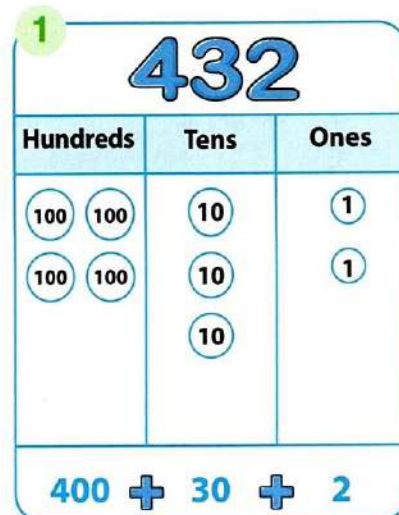
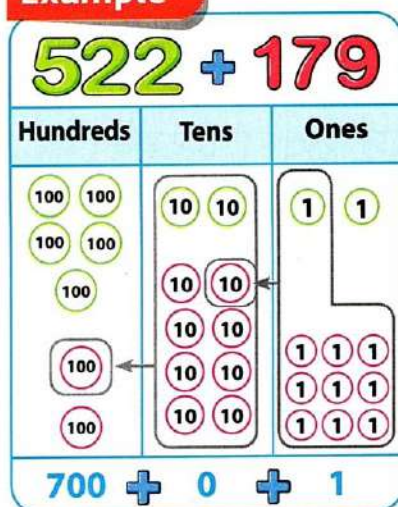


## Parents' Tips:

- Encourage your child to solve some problems about adding 3-digit numbers using the place value mat.

**Activity 2** Match each addition problem with its suitable answer:

**Example**



**Parents' Tips:**

- Ensure that your child can add 3-digit numbers easily using the place value mat.



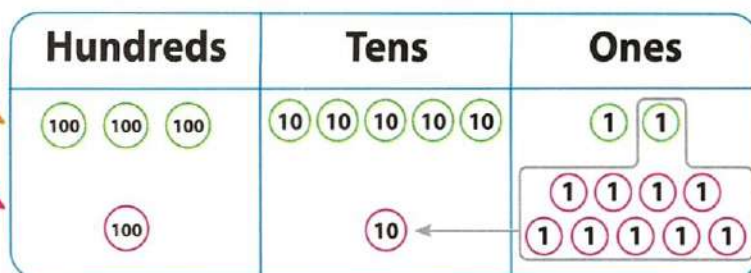
## Activity 3

Solve the following problems:

## Example

$$\begin{array}{r} 352 \\ + 109 \\ \hline \end{array}$$

461



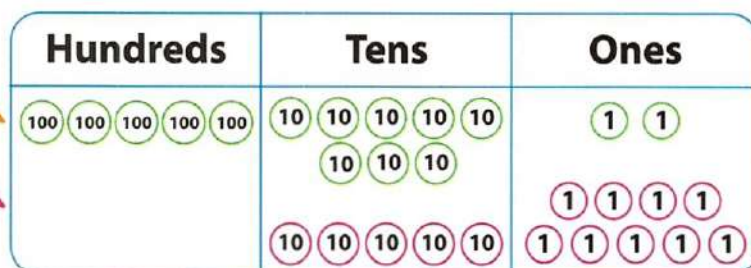
a

$$\begin{array}{r} 238 \\ + 194 \\ \hline \end{array}$$



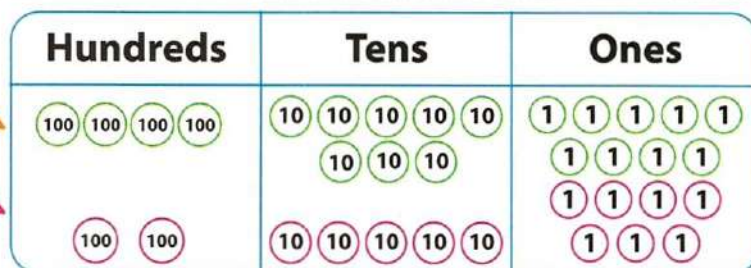
b

$$\begin{array}{r} 582 \\ + 59 \\ \hline \end{array}$$



c

$$\begin{array}{r} 489 \\ + 257 \\ \hline \end{array}$$



## I learned

- How to add 3-digit numbers with regrouping.
- How to use the place value mat to represent the addition problems.

# (A) Adding 2-digit numbers with regrouping

How can we add  $37 + 28$ ?

Tens	Ones
$\begin{array}{r} +1 \\ 3 \\ + \\ 2 \end{array}$	$\begin{array}{r} 7 \\ 8 \end{array}$
6	$\begin{array}{r} 1 \\ 5 \end{array}$

Keep the tens in the tens column.

Keep the ones in the ones column.

Follow the following steps:

**First step:** Add the ones digits

$$7 + 8 = 15 \text{ ones}$$

**Second step:** As the place value must contain only one digit so,

1- Keep the first digit **5** in the ones place.

Put **5** in the **ones place**.

2- Move up the second digit **+1** over the tens place.

**Third step:** Add the tens digits.

$$1 + 3 + 2 = 6$$

Put **6** in the **tens place**.

**Fourth step:**

$$37 + 28 = 65$$



## Daily Practice:

• Invite your child to look at the calendar and ask him/her to draw a circle around today's date.

**Key words:** Move up - Tens column - Ones column - Move up...Over



## Activity 1 Add:

## Example

$$\begin{array}{r} 1 \\ 63 \\ + 27 \\ \hline 90 \end{array}$$

Diagram showing the addition of 63 and 27. A box shows the calculation  $7 + 3 = 10$ . An arrow points from the 0 in the box to the 1 in the tens place of the result, and another arrow points from the 1 in the box to the 7 in the ones place of the result.

a

$$\begin{array}{r} \square \\ 54 \\ + 28 \\ \hline \end{array}$$

Diagram showing the addition of 54 and 28. A box shows the calculation  $8 + 4 = 12$ . An arrow points from the 2 in the box to the 1 in the tens place of the result, and another arrow points from the 1 in the box to the 8 in the ones place of the result.

b

$$\begin{array}{r} \square \\ 43 \\ + 39 \\ \hline \end{array}$$

Diagram showing the addition of 43 and 39. A box shows the calculation  $9 + 3 = 12$ . An arrow points from the 2 in the box to the 1 in the tens place of the result, and another arrow points from the 1 in the box to the 9 in the ones place of the result.

c

$$\begin{array}{r} \square \\ 89 \\ + \quad 9 \\ \hline \end{array}$$

Diagram showing the addition of 89 and 9. A box shows the calculation  $9 + 9 = 18$ . An arrow points from the 8 in the box to the 1 in the tens place of the result, and another arrow points from the 1 in the box to the 9 in the ones place of the result.

d

$$\begin{array}{r} \square \\ 45 \\ + \quad 6 \\ \hline \end{array}$$

Diagram showing the addition of 45 and 6. A box shows the calculation  $5 + 6 = 11$ . An arrow points from the 1 in the box to the 1 in the tens place of the result, and another arrow points from the 1 in the box to the 6 in the ones place of the result.

e

$$\begin{array}{r} \square \\ 76 \\ + 17 \\ \hline \end{array}$$

Diagram showing the addition of 76 and 17. A box shows the calculation  $6 + 7 = 13$ . An arrow points from the 3 in the box to the 1 in the tens place of the result, and another arrow points from the 1 in the box to the 7 in the ones place of the result.

f

$$\begin{array}{r} \square \\ 29 \\ + 22 \\ \hline \end{array}$$

Diagram showing the addition of 29 and 22. A box shows the calculation  $9 + 2 = 11$ . An arrow points from the 1 in the box to the 1 in the tens place of the result, and another arrow points from the 1 in the box to the 2 in the ones place of the result.

g

$$\begin{array}{r} \square \\ 77 \\ + 15 \\ \hline \end{array}$$

Diagram showing the addition of 77 and 15. A box shows the calculation  $7 + 5 = 12$ . An arrow points from the 2 in the box to the 1 in the tens place of the result, and another arrow points from the 1 in the box to the 7 in the ones place of the result.

h

$$\begin{array}{r} \square \\ 67 \\ + \quad 7 \\ \hline \end{array}$$

Diagram showing the addition of 67 and 7. A box shows the calculation  $7 + 7 = 14$ . An arrow points from the 4 in the box to the 1 in the tens place of the result, and another arrow points from the 1 in the box to the 7 in the ones place of the result.

## Parents' Tips:

- Help your child learn how to add 2-digit numbers with regrouping.

# (B) Adding 3-digit numbers with regrouping

How can we add  $376 + 252$ ?

Hundreds	Tens	Ones
$\begin{array}{r} +1 \\ 3 \\ + 2 \\ \hline 6 \end{array}$	$\begin{array}{r} 7 \\ 5 \\ \hline 2 \end{array}$	$\begin{array}{r} 6 \\ 2 \\ \hline 8 \end{array}$

Follow the following steps:

**First step:** Add the ones digits

$$6 + 2 = 8 \text{ ones}$$

put 8 in the **ones place**

**Second step:** Add the tens digits

$$7 + 5 = 12$$

**Third step:** As the place value must contain only one digit so,

1- Keep the first digit 2 in the tens place.

Put 2 in the **tens place.**

2- Move up the second digit (+1) over the hundreds place.

**Fourth step:** Add the hundreds digits.

$$1 + 3 + 2 = 6$$

Put 6 in the **hundreds place.**

**Fifth step:**  $376 + 252 = 628$



## Daily Practice:

- Encourage your child to count the number of days he/she spent in school and draw a circle around the total number on the 120 chart.



## Activity 2 Add

## Example

$$\begin{array}{r}
 11 \\
 677 \\
 + \quad 94 \\
 \hline
 771
 \end{array}$$

a

$$\begin{array}{r}
 \square \\
 485 \\
 + \quad 230 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

b

$$\begin{array}{r}
 \square \\
 350 \\
 + \quad 158 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

c

$$\begin{array}{r}
 \square \\
 938 \\
 + \quad 15 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

d

$$\begin{array}{r}
 \square \quad \square \\
 222 \\
 + \quad 179 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

e

$$\begin{array}{r}
 \square \\
 463 \\
 + \quad 260 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

f

$$\begin{array}{r}
 \square \quad \square \\
 458 \\
 + \quad 145 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

g

$$\begin{array}{r}
 \square \\
 167 \\
 + \quad 90 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

h

$$\begin{array}{r}
 \square \\
 521 \\
 + \quad 298 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

i

$$\begin{array}{r}
 \square \\
 643 \\
 + \quad 121 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

j

$$\begin{array}{r}
 \square \\
 692 \\
 + \quad 124 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

k

$$\begin{array}{r}
 \square \\
 391 \\
 + \quad 336 \\
 \hline
 \square \quad \square \quad \square
 \end{array}$$

## Parents' Tips:

- Invite your child to solve some problems about adding 3-digit numbers with regrouping.

Activity 3 Add:

a

+	3	3
	2	0
		7

b

+	6	4
	1	2
		1

c

+	5	5
	2	6
		3

d

+	3	2
	1	5
		7

e

+	4	5
	2	1
		4

f

+	6	9
	1	2
		4

g

+	6	2
	2	9
		6

h

+	3	2
	3	3
		1

i

+	4	7
	2	8
		3

j

+	3	5
		6
		0

k

+	5	1
	2	6
		7

l

+	6	3
		6
		5

Parents' Tips:

- Encourage your child to add 3-digit number with regrouping.



## Activity

4

## Add

a  $461$   
 $+$   
 $52$

b  $455$   
 $+$   
 $292$

c  $604$   
 $+$   
 $148$

d  $520$   
 $+$   
 $358$

e  $37$   
 $+$   
 $8$

f  $49$   
 $+$   
 $18$

g  $66$   
 $+$   
 $19$

h  $442$   
 $+$   
 $295$

i  $843$   
 $+$   
 $96$

j  $469$   
 $+$   
 $23$

k  $424$   
 $+$   
 $268$

l  $30$   
 $+$   
 $86$

m  $190$   
 $+$   
 $70$

n  $304$   
 $+$   
 $199$

o  $657$   
 $+$   
 $238$

p  $563$   
 $+$   
 $356$

q  $402$   
 $+$   
 $247$

r  $602$   
 $+$   
 $243$



## I learned

- How to add with regrouping without drawing.



# Detecting errors (identify and fix errors)

Being able to detect errors and fix them  
helps you to learn better.

Let's know how to check a mistake and fix it.

## Example 1

$$\begin{array}{r} + 1 \\ + 39 \\ 14 \\ \hline 53 \end{array}$$

Check the answer  
(solve it again by yourself)

$$\begin{array}{r} + 1 \\ + 39 \\ 14 \\ \hline 53 \end{array}$$

The answer is right ✓.

## Example 2

Round to estimate

$$732 - 259$$

The answer is

$$700 - 200 = 500$$

Check the answer  
(solve it again by yourself)

$$700 - 300 = 400$$

The answer 500 is wrong ✗

The right answer is 400.



Notice that:

- You can check the answer using your mind or by writing on a piece of paper.



### Daily Practice:

- Invite your child to look at the calendar and ask him/her to color today's date in blue.

**Key words:** Detecting - Fix - Detective - Check - Right - Wrong - Error



## Activity

1

Check each of the following problems and write (right) or (wrong), then fix it:

## Example

$$\begin{array}{r} 342 \\ + 179 \\ \hline 411 \end{array}$$

Wrong

Correct answer

$$\begin{array}{r} \overset{+1}{\overset{+1}{3}}42 \\ + 179 \\ \hline 521 \end{array}$$

a



This is  
a 3 by 2 array

Correct answer

b

The sum of  
**429 + 231**  
is an odd  
number

Correct answer

c

$$\begin{array}{r} \text{L.E. } 42 \\ - \text{L.E. } 142 \\ \hline \text{L.E. } 284 \end{array}$$

Correct answer

d

Round to  
estimate  
**894 - 618**  
The answer is  
**800 - 600**  
**=200**

Correct answer

e

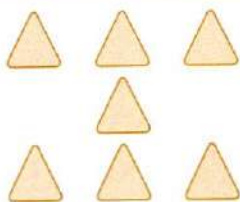
$$\begin{array}{r} 780 \\ - 294 \\ \hline 514 \end{array}$$

Correct answer



**Activity 2** Look at the following problems, then color the correct problem:

a



This is a 3 by 3 array.

b

The sum of  
 $24 + 38$   
is an even number.

c

Using rounding  
estimation, find  
 $164 + 694$   
The answer is  
 $100 + 700 = 800$

d

Using front-end  
estimation  
 $214 - 180$   
The answer is  
 $200 - 100 = 100$

e

$$\begin{array}{r} \overset{+1}{329} \\ + \\ 418 \\ \hline 747 \end{array}$$

f

$$\begin{array}{r} \overset{+1}{\text{L.E. } 98} \\ + \\ \overset{+1}{\text{L.E. } 472} \\ \hline \text{L.E. } 560 \end{array}$$

**Activity 3** Fix the following problems:

a

$$\begin{array}{r} 392 \\ + \\ 146 \\ \hline \end{array}$$

438

The actual sum

400

Front-end estimation

600

Rounding estimation

The actual sum

Front-end estimation

Rounding estimation

b

$$\begin{array}{r} 906 \\ - \\ 249 \\ \hline \end{array}$$

745

The actual difference

600

Front-end estimation

800

Rounding estimation

The actual difference

Front-end estimation

Rounding estimation





## Activity

4

Check each problem of the following, then if the answer of the problem is correct mark ( $\checkmark$ ), if the answer of the problem is incorrect mark ( $\times$ ):

## Example

Estimate the sum  
of

$$54 + 21$$

The answer is

$$50 + 30 = 80$$

 $\times$ 

a

Round

68

to the nearest ten.

The answer is

70

b

Add:

$$\begin{array}{r} \textcircled{1} \\ 123 \\ + \quad 8 \\ \hline \end{array}$$

The answer is

171

c

Round to estimate  
the difference of

$$176 - 82$$

The answer is

$$180 - 80 = 100$$

d

Round

82

to the nearest ten.

The answer is 80

e

Add:

$$\begin{array}{r} 66 \\ + \quad 5 \\ \hline \end{array}$$

The answer is

61

## Parents' Tips:

- Show your child some solved problems and ask him/her to check if the answer is correct or incorrect, then help him/her to discover the mistake of the incorrect problems.

Activity 5

Check each problem of the following, then if the answer of the problem is correct draw 😊, if the answer of the problem is incorrect draw ☹️ :

Example

Round 832 to  
the nearest  
hundred 800



a

Round to  
estimate the  
difference of  
 $242 - 36$   
 $240 - 40 = 200$



b

$77$   
 $+ 7$   

---

 $74$



c

Round to  
estimate the  
difference of  
 $87 - 31$   
 $80 - 30 = 50$



d

$235$   
 $+ 491$   

---

 $726$



e

$114$   
 $+ 37$   

---

 $151$



f

Round to  
estimate the  
sum of  
 $57 + 28$   
 $50 + 20 = 70$



g

$56$   
 $+ 26$   

---

 $72$



h

Round to  
estimate the  
sum of  $28 + 16$   
 $30 + 20 = 50$



I learned

- How to find the mistakes in some problems.
- How to fix mistakes.





# Summary



Use front-end estimation strategy to add or subtract 2-digit numbers.

$$27 + 38$$

$$20 + 30 = 50$$

$$72 - 39$$

$$70 - 30 = 40$$

Use rounding strategy to add and subtract 2-digit numbers.

$$39 + 43$$

$$40 + 40 = 80$$

$$93 - 79$$

$$90 - 80 = 10$$

Use front-end strategy to add or subtract 3-digit numbers.

$$439 + 297$$

$$400 + 200 = 600$$

$$979 - 622$$

$$900 - 600 = 300$$

Detect errors and fix them.

Add 3-digit numbers with regrouping.

$$\begin{array}{r} \overset{+1}{\overset{+1}{2}}37 \\ + 198 \\ \hline 435 \end{array}$$

Add 2-digit numbers with regrouping.

$$\begin{array}{r} \overset{+1}{4}6 \\ + 15 \\ \hline 61 \end{array}$$

Use rounding estimation strategy to add or subtract 3-digit numbers.

$$539 + 290$$

$$500 + 300 = 800$$

$$873 - 236$$

$$900 - 200 = 700$$



# General Activities

## On Chapter 3

1 Round each number to the nearest tens:

- a 57      b 83      c 75      d 22      e 39  
f 64      g 45      h 36      i 53      j 78  
k 29      l 31      m 84      n 65      o 92

2 Round each number to the nearest hundreds:

- a 284      b 765      c 143      d 937      e 498  
f 522      g 608      h 181      i 875      j 751  
k 396      l 412      m 252      n 749      o 536

3 Round each number to the nearest underlined place value:

- a 387      b 445      c 291      d 803      e 528  
f 640      g 353      h 769      i 134      j 218



4 Round to estimate, then match:

a  $91 - 72 =$  ☐

b  $732 - 199 =$  ☐

c  $26 + 39 =$  ☐

d  $314 + 290 =$  ☐

e  $76 - 68 =$  ☐

f  $702 - 399 =$  ☐

g  $61 + 17 =$  ☐

h  $439 + 392 =$  ☐



5 Add:

a

$$\begin{array}{r} \square \\ 560 \\ + \\ 285 \\ \hline \end{array}$$

b

$$\begin{array}{r} \square \\ 39 \\ + \\ 48 \\ \hline \end{array}$$

c

$$\begin{array}{r} \square \\ 555 \\ + \\ 208 \\ \hline \end{array}$$

d

$$\begin{array}{r} \square \\ 18 \\ + \\ 68 \\ \hline \end{array}$$

e

$$\begin{array}{r} \square \\ 754 \\ + \\ 64 \\ \hline \end{array}$$

f

$$\begin{array}{r} \square \\ 860 \\ + \\ 88 \\ \hline \end{array}$$

g

$$\begin{array}{r} \square \\ 27 \\ + \\ 56 \\ \hline \end{array}$$

h

$$\begin{array}{r} \square \\ 543 \\ + \\ 248 \\ \hline \end{array}$$

i

$$\begin{array}{r} \square \\ 99 \\ + \\ 7 \\ \hline \end{array}$$

j

$$\begin{array}{r} \square \square \\ 555 \\ + \\ 295 \\ \hline \end{array}$$

k

$$\begin{array}{r} \square \\ 8 \\ + \\ 77 \\ \hline \end{array}$$

l

$$\begin{array}{r} \square \\ 733 \\ + \\ 139 \\ \hline \end{array}$$

m

$$\begin{array}{r} \square \\ 67 \\ + \\ 76 \\ \hline \end{array}$$

n

$$\begin{array}{r} \square \\ 902 \\ + \\ 58 \\ \hline \end{array}$$

o

$$\begin{array}{r} \square \square \\ 732 \\ + \\ 168 \\ \hline \end{array}$$





**6** Estimate using front-end and rounding, then write the actual sum or difference:

**a**

$$\begin{array}{r} 125 \\ + 325 \\ \hline \end{array}$$

Front-end estimation  
 $\begin{array}{r} \phantom{1} + \phantom{3} \\ = \end{array}$

Rounding  
 $\begin{array}{r} \phantom{1} + \phantom{3} \\ = \end{array}$

Actual

**b**

$$\begin{array}{r} 399 \\ - 181 \\ \hline \end{array}$$

Front-end estimation  
 $\begin{array}{r} \phantom{3} - \phantom{1} \\ = \end{array}$

Rounding  
 $\begin{array}{r} \phantom{3} - \phantom{1} \\ = \end{array}$

Actual

**c**

$$\begin{array}{r} 555 \\ + 283 \\ \hline \end{array}$$

Front-end estimation  
 $\begin{array}{r} \phantom{5} + \phantom{2} \\ = \end{array}$

Rounding  
 $\begin{array}{r} \phantom{5} + \phantom{2} \\ = \end{array}$

Actual

**d**

$$\begin{array}{r} 642 \\ - 160 \\ \hline \end{array}$$

Front-end estimation  
 $\begin{array}{r} \phantom{6} - \phantom{1} \\ = \end{array}$

Rounding  
 $\begin{array}{r} \phantom{6} - \phantom{1} \\ = \end{array}$

Actual

**e**

$$\begin{array}{r} 254 \\ - 67 \\ \hline \end{array}$$

Front-end estimation  
 $\begin{array}{r} \phantom{2} - \phantom{6} \\ = \end{array}$

Rounding  
 $\begin{array}{r} \phantom{2} - \phantom{6} \\ = \end{array}$

Actual

**f**

$$\begin{array}{r} 180 \\ + 98 \\ \hline \end{array}$$

Front-end estimation  
 $\begin{array}{r} \phantom{1} + \phantom{9} \\ = \end{array}$

Rounding  
 $\begin{array}{r} \phantom{1} + \phantom{9} \\ = \end{array}$

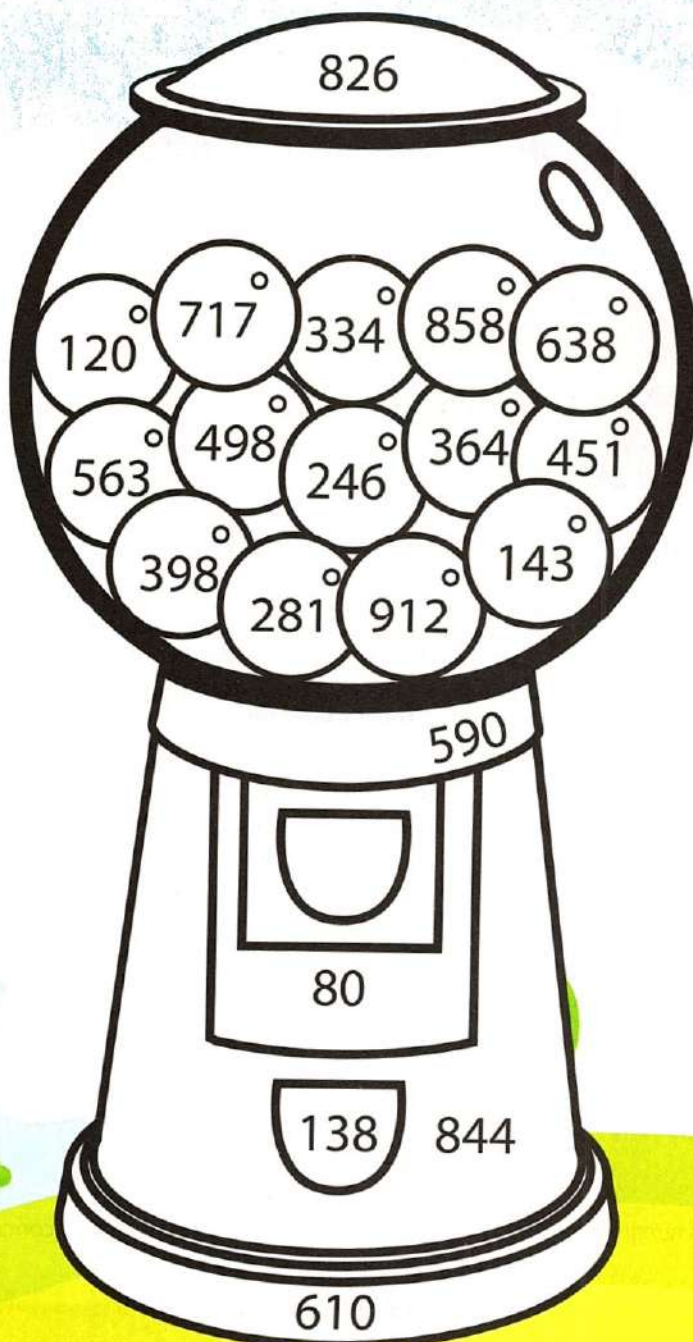
Actual





## Color by rounding:

Directions: Color the picture by rounding to the nearest hundreds using the code:



100 =	
200 =	
300 =	
400 =	
500 =	
600 =	
700 =	
800 =	
900 =	





# Chapter

# 4



$$\begin{array}{r} 94 \\ - 52 \\ \hline \end{array}$$



$$\begin{array}{r} 17 \\ - 8 \\ \hline \end{array}$$



$$\begin{array}{r} 345 \\ - 163 \\ \hline \end{array}$$

## Pacing Guide

### Lesson (91): Relation between adding and subtracting (Fact family numbers)

#### Outcomes

- Create addition & subtraction sentences using fact families.
- Explain the relationship between addition and subtraction.

### Lesson (92): Number line

#### Outcomes

- Use the number line to subtract.
- Explain the relationship between addition and subtraction using a number line.

### Lesson (93): Subtraction story problems

#### Outcomes

- Solve story problems involving subtraction.
- Identify words that give a signal for subtraction to solve a problem.

### Lesson (94): Decomposing 2-digit numbers

#### Outcomes

- Decompose 2-digit numbers into combinations of tens & ones.

### Lesson (95): Using cluster strategy to subtract by tens and hundreds

#### Outcomes

- Apply mental math strategies to subtract by tens and hundreds.
- Subtract groups of 10 using cluster strategy.

### Lesson (96): Subtracting 2-digit numbers with regrouping

#### Outcomes

- Use the place value mat to regroup and subtract.
- Subtract 2-digit numbers with regrouping.
- Apply strategies to estimate difference.

### Lesson (97): Subtracting 3-digit numbers with regrouping tens

#### Outcomes

- Subtract 3-digit numbers with regrouping tens using the place value mat.

### Lesson (98): Subtracting 3-digit numbers with regrouping hundreds

#### Outcomes

- Subtract 3-digit numbers with regrouping hundreds using the place value mat.

### Lesson (99): Subtracting 2-digit numbers using problem solving operation

#### Outcomes

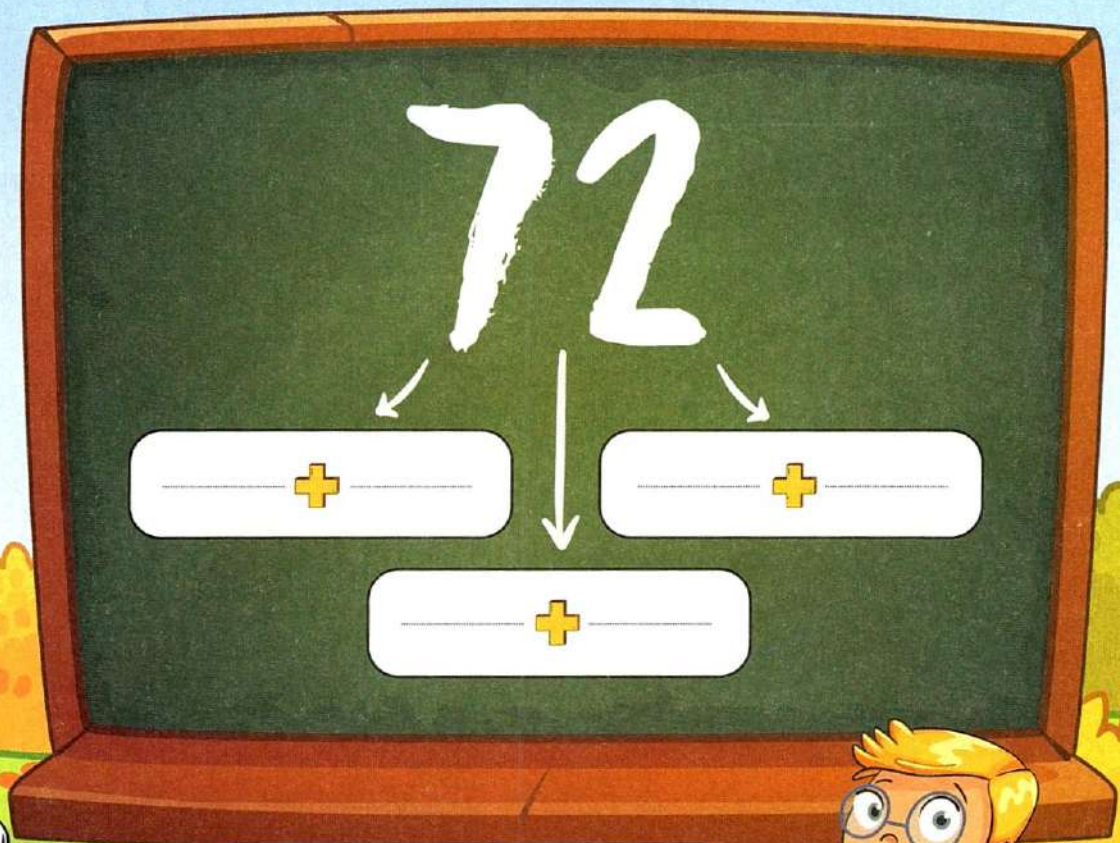
- Subtract 2-digit numbers with regrouping without using the place value mat.
- Use the problem solving operation to subtract 2-digit numbers.

### Lesson (100): Subtracting 3-digit numbers using problem solving operation

#### Outcomes

- Subtract 3-digit numbers with regrouping.
- Make the connection between abstract and concrete models of regrouping.





Mmmm!

I want to decompose 72 in  
3 different ways  
Ahmed, can you help me?

Let's know how to  
decompose a number  
in different ways in this  
chapter.



# Relation between adding and subtracting (Fact family numbers)

My fact  
family  
house

11

8

3

$$8 + 3 = 11$$

$$3 + 8 = 11$$

$$11 - 8 = 3$$

$$11 - 3 = 8$$

- My first & second members of my fact family is **8 and 3**.
- The third member is their sum  **$8 + 3 = 11$** .

Addition and subtraction are related to each other, they are the inverse (or opposite of each other).

## Remember:

- Addition is commutative  **$8 + 3 = 3 + 8$** . (Order doesn't matter.)
- In subtraction order matters. We have to start with the bigger number  **$11 - 8$** .

## Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of today and the name of the day before and the day after.

**Key words:** Fact family - Inverse - Commutative.



Activity

1

Use the following numbers to form the addition and subtraction sentences:



a

6

11

5

..... + ..... = .....

..... + ..... = .....

..... - ..... = .....

..... - ..... = .....



b

13

5

8

..... + ..... = .....

..... + ..... = .....

..... - ..... = .....

..... - ..... = .....



c

9

16

7

..... + ..... = .....

..... + ..... = .....

..... - ..... = .....

..... - ..... = .....

Activity

2

Complete the numbers to make a fact family, then write the addition or subtraction sentences:

a



..... + ..... = .....

..... + ..... = .....

..... - ..... = .....

..... - ..... = .....

b



..... + ..... = .....

..... + ..... = .....

..... - ..... = .....

..... - ..... = .....

Parents' Tips:

• Help your child form a fact family with different members along with their number sentences.



## Activity

3

Find the missing numbers in the following fact families:

a



$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

16

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

b



$$\dots\dots\dots + 4 = \dots\dots\dots$$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

c



$$3 + 1 = \dots\dots\dots$$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

d



$$8 + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

e



$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - 17 = \dots\dots\dots$$

$$\dots\dots\dots - 3 = \dots\dots\dots$$

f



$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots - \dots\dots\dots = \dots\dots\dots$$

Activity 4

Color each number sentence according to the color of its fact family:



a 3, 4, 7



b 5, 7, 12



c 8, 6, 14



d 2, 6, 8

$$3 + 4 = 7$$

$$6 + 2 = 8$$

$$12 - 5 = 7$$

$$8 - 6 = 2$$

$$8 + 6 = 14$$

$$6 + 8 = 14$$

$$4 + 3 = 7$$

$$12 - 7 = 5$$

$$7 + 5 = 12$$

$$7 - 4 = 3$$

$$8 - 2 = 6$$

$$14 - 8 = 6$$

$$2 + 6 = 8$$

$$5 + 7 = 12$$

$$14 - 6 = 8$$

$$7 - 3 = 4$$



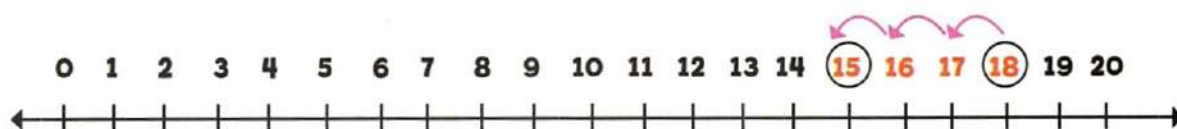
I learned

- The relation between addition and subtraction.
- How to create addition and subtraction sentences using fact families.





# Number line



We can use the number line to subtract  $18 - 3 = 15$ .

**First** : We make a circle around the bigger number 18.

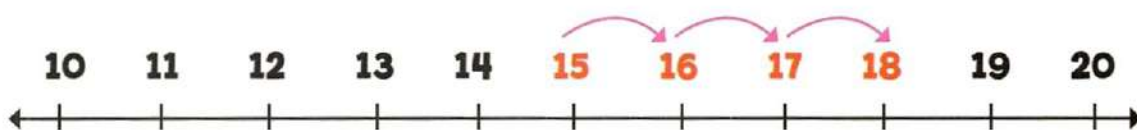
**Second**: We count back 3 jumps.

**Third** : At last we land on the result which is 15.



I can represent the same fact family in addition problem using the number line.

$$15 + 3 = 18$$



**Number line**: is a great tool that helps us see the distance between numbers making subtraction & addition easier.



## Daily Practice:

- Ask your child to count the number of days he/she spent in school and draw a circle around the total number in the 120 chart.
- Encourage your child to tell you the name of the day and the name of the month.

**Key words**: Number line - Count back

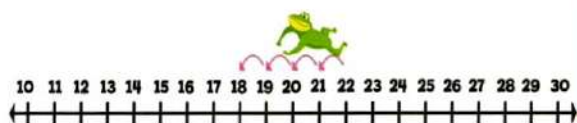
Activity

1

Help the frog hop the correct number of jumps, then write the answer:

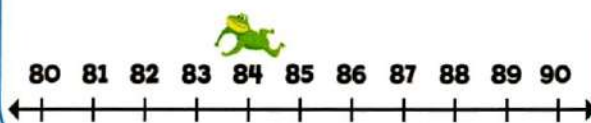
Example

$$22 - 4 = 18$$



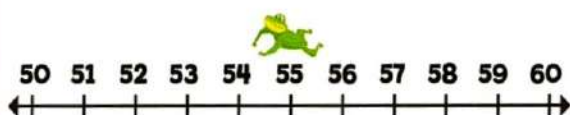
a

$$84 - 4 = \dots\dots\dots$$



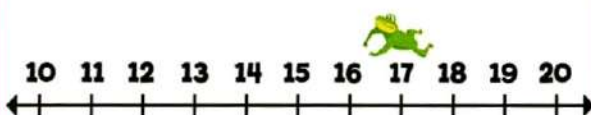
b

$$55 - 3 = \dots\dots\dots$$



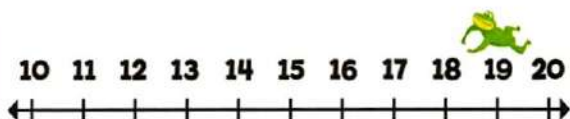
c

$$17 - 1 = \dots\dots\dots$$



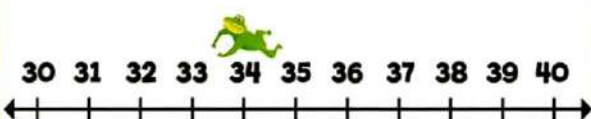
d

$$19 - 0 = \dots\dots\dots$$



e

$$34 - 2 = \dots\dots\dots$$



Parents' Tips:

- Help your child practice solving subtraction problems using the number line.



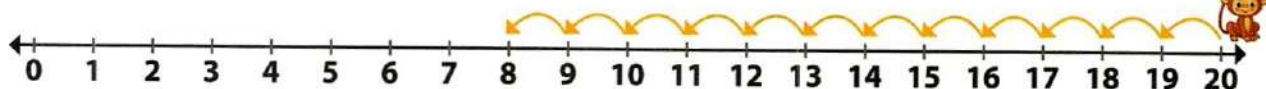
## Activity

2

Complete the following equations using the number line:

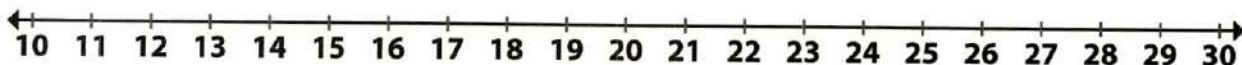
## Example

$$20 - 12 = 8$$



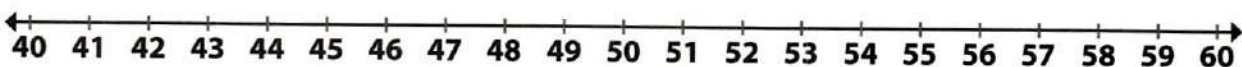
a

$$29 - 7 = \dots\dots\dots$$



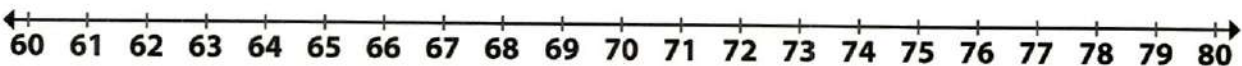
b

$$59 - 13 = \dots\dots\dots$$



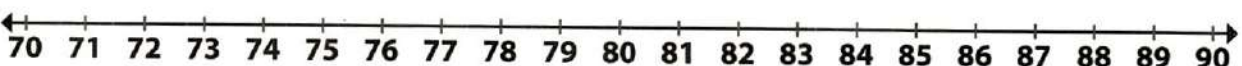
c

$$77 - 10 = \dots\dots\dots$$



d

$$89 - 14 = \dots\dots\dots$$

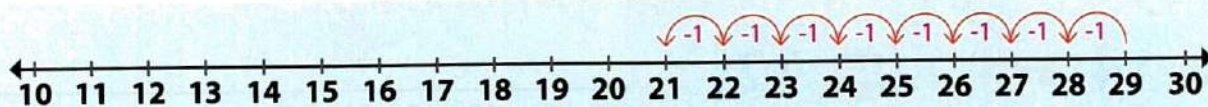


## Parents' Tips:

- Solve with your child some subtraction problems using the number line.

**Activity 3** Color the correct answer, then write the difference:

a



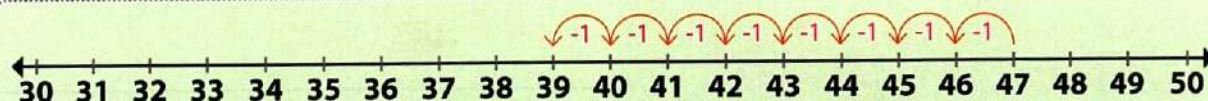
$21 - 29$

$29 - 8$

$29 - 1$

The difference is \_\_\_\_\_

b



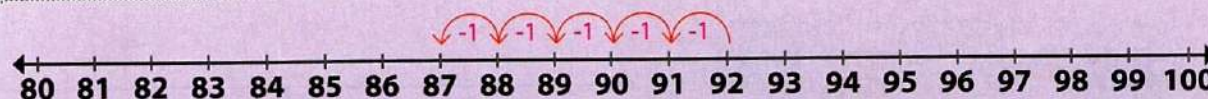
$47 - 6$

$39 - 47$

$47 - 8$

The difference is \_\_\_\_\_

c



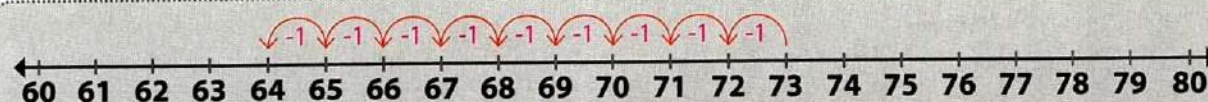
$92 - 5$

$87 - 92$

$92 - 15$

The difference is \_\_\_\_\_

d



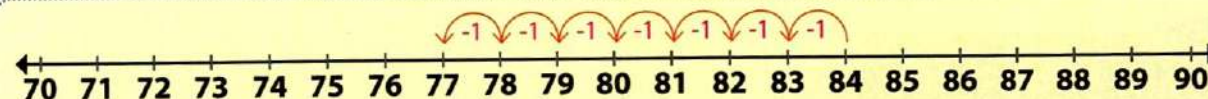
$9 - 73$

$73 - 9$

$73 - 7$

The difference is \_\_\_\_\_

e



$84 - 8$

$77 - 84$

$84 - 7$

The difference is \_\_\_\_\_



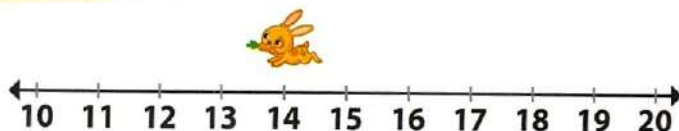


## Activity

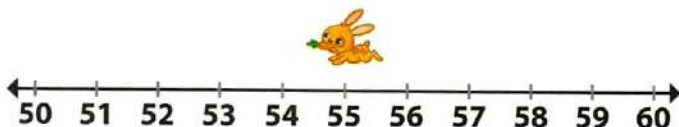
4

Draw the jumps of the rabbit on each number line, then record its subtraction problem:

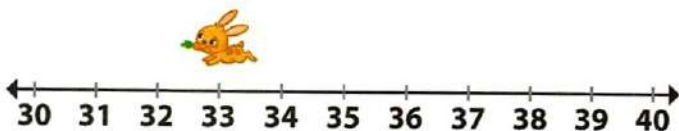
a  $14 - \square = 12$



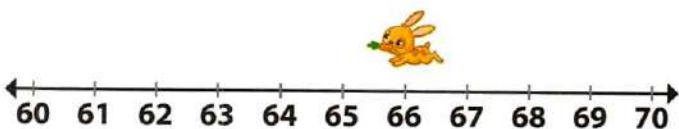
b  $55 - 4 = \square$



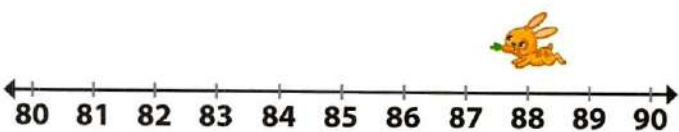
c  $33 - \square = 30$



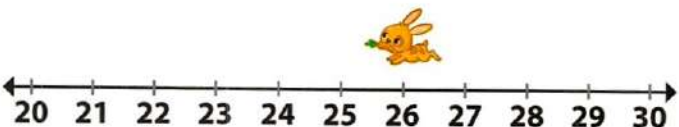
d  $66 - 2 = \square$



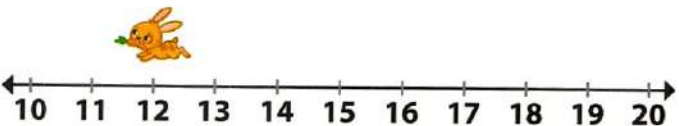
e  $88 - \square = 83$



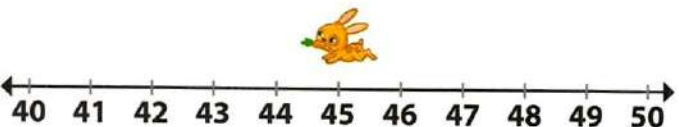
f  $26 - 3 = \square$



g  $12 - \square = 11$



h  $45 - 5 = \square$



## I learned

- How to use the number line to subtract and add.
- The relationship between addition and subtraction using the number line.



# Subtraction story problems

We can solve story problems using different ways

Using the place value mat

Number line

Decomposing

120 chart

The key words that give a clue for subtraction:

- less than
- difference
- left over
- How (much **or** many) more?
- How (much **or** many) less?
- How (much **or** many) left?

Farida found a Christmas tree with 28 gifts around it, she opened 12 gifts, how many gifts are **left over** unopened?

$$\begin{array}{r}
 \begin{array}{c} \text{28} \\ \hline 20 \quad 8 \end{array} \quad - \quad \begin{array}{c} \text{12} \\ \hline 10 \quad 2 \end{array} \\
 \begin{array}{l} \text{Subtract tens} \\ 20 - 10 \\ = 10 \end{array} \quad \begin{array}{l} \text{Subtract ones} \\ 8 - 2 \\ = 6 \end{array} \\
 \hline
 10 + 6 = 16
 \end{array}$$



Notice that:

- Order is important in subtraction so we have to start with the bigger number "28".



We can estimate the solution by using rounding strategy as:

$$28 - 12$$

$$30 - 10 = 20$$

(It is close to the actual result 16)

## Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the day and the name of the day before and the day after.

**Key words:** Story problem - Left - Difference - How much - How many - More - Less - Left over



**Activity 1** Read, think, then solve:**Example**

Karim wants to read a book of **78** pages. He read already **12** pages. **How much more pages does he need to read to finish the book?**



The difference = **78 - 12**

Actual result = **66**

Estimation using rounding method is **80 - 10 = 70**

Estimation using front-end method is **70 - 10 = 60**

**66** is between **60** and **70**

So, the answer is reasonable.

**a**

Miss Amira has **39** girls in her class and **21** boys.  
**Find the difference between the number of girls and the number of boys in Miss Amira's class.**



The difference = ..... - .....

Actual result = .....

Estimation using rounding method is .....

Estimation using front-end method is .....

**b**

Salma catches 49 fish in the sea, she puts 17 back,  
**how many fish does she have now?**



The difference = ..... - .....

Actual result = .....

Estimation using rounding method is .....

Estimation using front-end method is .....

**Parents' Tips:**

• Help your child solve different story problems that represent the subtraction relation.

**Key words:**

Difference - Actual result - Estimation

**Activity 2** Read, think, then solve:

- a** Ali had **L.E. 100**, he went to a store to buy a video game that cost **L.E. 183**, **how much more money does he need to buy this video game?**

The money that Ali needs = .....



- b** Nora had **L.E. 99**, she gave her brother Adam **L.E. 58**, **how much money was left with her?**

The money left with Nora = L.E. ....



- c** Maged had **29 oranges**, he used **21 oranges** to make some juice. **How many oranges were left with him?**

The oranges left with Maged = .....

Estimation using rounding method is .....

Estimation using front-end method is .....



**I learned**

- How to solve subtraction story problems.
- How to identify the words that give a clue for using subtraction.





I can decompose a number in different ways.

$20 + 20 + 14$

$50 + 4$

$40 + 30 + 6$

$70 + 6$

$10 + 44$

$40 + 14$

$30 + 46$

$60 + 16$

$20 + 34$

$30 + 24$

$40 + 36$

$50 + 26$

54

76



notice that:

- We can decompose the 2-digit numbers to regroup and get a new ten as:

$$55 = 10 + 45$$

$$76 = 10 + 66 \text{ and so on.}$$



### Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around today's date.
- Help your child draw a circle around the total number of days he/she spent in school in the number chart.

**Key words:** Decompose.





**Activity 1** Record 3 different ways to decompose each number:

**Example**

86

$60 + 26$

$80 + 6$

$16 + 70$



a

55

$\dots + \dots$

$\dots + \dots$

$\dots + \dots$



b

32

$\dots + \dots$

$\dots + \dots$

$\dots + \dots$



c

78

$\dots + \dots$

$\dots + \dots$

$\dots + \dots$



d

69

$\dots + \dots$

$\dots + \dots$

$\dots + \dots$



e

41

$\dots + \dots$

$\dots + \dots$

$\dots + \dots$



f

97

$\dots + \dots$

$\dots + \dots$

$\dots + \dots$



g

38

$\dots + \dots$

$\dots + \dots$

$\dots + \dots$



**Parents' Tips:**

- Help your child decompose 2-digit numbers into different combinations of tens & ones.



**Activity 2** Match each number to its suitable decomposition:**Example**

71



64

a



39

 $10 + 18$ 

b

 $50 + 14$ 

98

c



28

 $20 + 19$ 

d



53

 $40 + 13$ 

e

 $40 + 7$ 

47

f

 $70 + 28$  $60 + 11$ **I learned**

- Decomposing 2-digit numbers into different combinations of tens and ones.



# Using cluster strategy to subtract by tens and hundreds

The cluster problem is a set of three or more problems used to solve difficult subtraction problems.



Minuend

Subtrahend

To solve  $94 - 43$  using cluster strategy, follow the steps:

Problem (1)  $94 - 10 = 84$

Problem (2)  $94 - 20 = 74$

Problem (3)  $94 - 30 = 64$

Problem (4)  $94 - 40 = 54$

then,  $94 - 43 = 51$   $\leftarrow 54 - 3 = 51$

Step (1)

Subtract the 10's of the subtrahend from the minuend.

Step (2)

Subtract the ones of the subtrahend mentally from the fourth cluster problem you get the required difference 51.



- \* In the first three or four problems we subtract group of 10's or 100's.
- \* When you subtract 10's, the digit in ones place will be the same but the digit in ten's place decreases.
- \* In the last problem we subtract the ones of the subtrahend mentally.

## Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around today's date.
- Help your child tell you the name of the day and the name of the day before and the day after.

**Key words:** Cluster strategy - Subtract - Mentally - Subtrahend - Minuend - Difference



## Activity

1

Use the 120 chart to solve by using the cluster problems:

## Example



$$52 - 10 = 42$$

$$52 - 20 = 32$$

$$52 - 40 = 12$$

$$52 - 45 = 7$$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

a



$$94 - 10 = \dots\dots\dots$$

$$94 - 20 = \dots\dots\dots$$

$$94 - 60 = \dots\dots\dots$$

$$94 - 63 = \dots\dots\dots$$

b



$$800 - 100 = \dots\dots\dots$$

$$800 - 200 = \dots\dots\dots$$

$$800 - 600 = \dots\dots\dots$$

$$800 - 590 = \dots\dots\dots$$

c



$$397 - 100 = \dots\dots\dots$$

$$397 - 200 = \dots\dots\dots$$

$$397 - 300 = \dots\dots\dots$$

$$397 - 380 = \dots\dots\dots$$

d



$$160 - 10 = \dots\dots\dots$$

$$160 - 20 = \dots\dots\dots$$

$$160 - 40 = \dots\dots\dots$$

$$160 - 44 = \dots\dots\dots$$

## Parents' Tips:

- Help your child solve some cluster problems using the 120 chart.

**Activity 2** Match each cluster problem with its suitable answer:

a



$$\begin{aligned} 120 - 10 &= \\ 120 - 20 &= \\ 120 - 40 &= \\ 120 - 49 &= \end{aligned}$$



$$\begin{aligned} 52 \\ 42 \\ 22 \\ 21 \end{aligned}$$

b



$$\begin{aligned} 100 - 20 &= \\ 100 - 30 &= \\ 100 - 40 &= \\ 100 - 45 &= \end{aligned}$$



$$\begin{aligned} 80 \\ 70 \\ 60 \\ 55 \end{aligned}$$

c



$$\begin{aligned} 82 - 30 &= \\ 82 - 40 &= \\ 82 - 60 &= \\ 82 - 61 &= \end{aligned}$$



$$\begin{aligned} 85 \\ 75 \\ 65 \\ 60 \end{aligned}$$

d



$$\begin{aligned} 95 - 10 &= \\ 95 - 20 &= \\ 95 - 30 &= \\ 95 - 35 &= \end{aligned}$$



$$\begin{aligned} 110 \\ 100 \\ 80 \\ 71 \end{aligned}$$

**Parents' Tips:**

- Encourage your child to find the result of cluster problems.



## Activity

3

Subtract, then color the suitable answer in each of the following:

a

$65 - 10 = 55$

$65 - 20 = 45$

$65 - 30 = 35$

$65 - 35 = \dots\dots\dots$

45

40

30

b

$170 - 10 = 160$

$170 - 30 = 140$

$170 - 40 = 130$

$170 - 145 = \dots\dots\dots$

150

70

25

c

$320 - 10 = 310$

$320 - 30 = 290$

$320 - 40 = 280$

$320 - 140 = \dots\dots\dots$

300

200

180

d

$140 - 10 = 130$

$140 - 20 = 120$

$140 - 40 = 100$

$140 - 60 = \dots\dots\dots$

140

100

80



## I learned

- How to use cluster problems to subtract mentally.

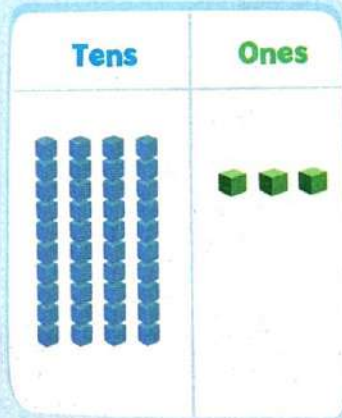
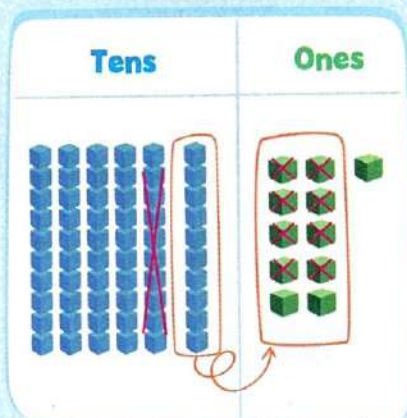




# Subtracting 2-digit numbers with regrouping

## To subtract $61 - 18$

$$61 - 18 = 43$$



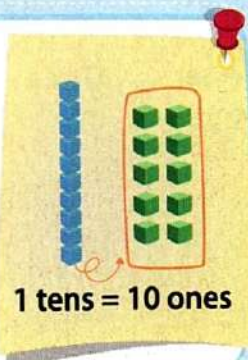
**First:** we draw the place value mat of the minuend **61**.

**Second:** we take away the subtrahend **18** as follows:

- 1) We start with ones, we can't take away 8 from 1 so we need to regroup 1 tens as 10 ones
- 2) Now, we have  $11 - 8 = 3$  in the ones place.
- 3) We subtract the tens:

$$5 \text{ tens} - 1 \text{ tens} = 4 \text{ tens}$$

**Third:** so my result is **43**



### Remember:

We can also estimate the result using:

- Front-end estimation  $60 - 10 = 50$
- Rounding estimation  $60 - 20 = 40$

So, my actual result is near to my rounding estimation.

### Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around today's date.
- Encourage your child to tell you the name of the current day and the current month.

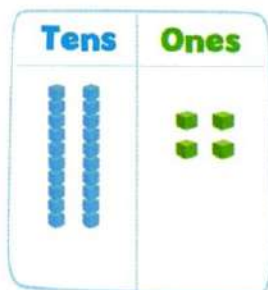
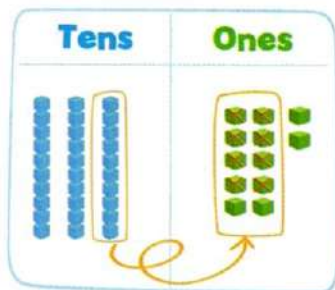
**Key words:** Subtract - Regroup - Estimation - Actual result - Minuend - Subtrahend - Difference



# Activity 1 Estimate using rounding estimation, then subtract using the place value mat:

## Example

$$\begin{array}{|c|} \hline 32 \\ \hline \end{array} - \begin{array}{|c|} \hline 8 \\ \hline \end{array} = \begin{array}{|c|} \hline \text{HTO} \\ \hline 24 \\ \hline \end{array}$$



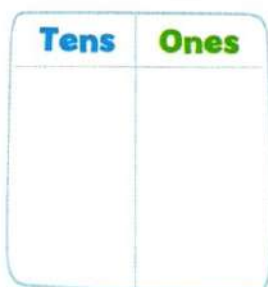
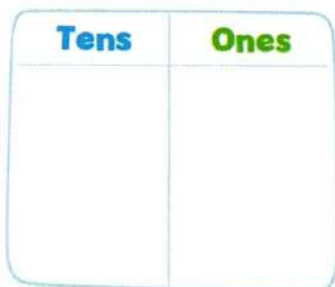
Estimation:

$$30 - 10 = 20$$



a

$$\begin{array}{|c|} \hline 90 \\ \hline \end{array} - \begin{array}{|c|} \hline 37 \\ \hline \end{array} = \begin{array}{|c|} \hline \text{HTO} \\ \hline \end{array}$$

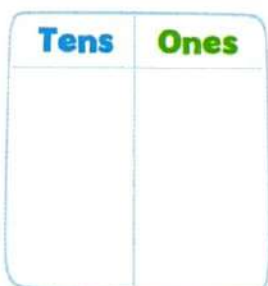


Estimation:



b

$$\begin{array}{|c|} \hline 46 \\ \hline \end{array} - \begin{array}{|c|} \hline 29 \\ \hline \end{array} = \begin{array}{|c|} \hline \text{HTO} \\ \hline \end{array}$$



Estimation:



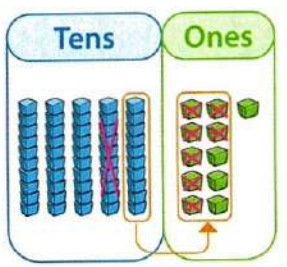
### Parents' Tips:

- Help your child subtract 2-digit numbers with regrouping.
- Practice with your child to solve subtraction problems using the place value mat.

**Activity 2** Subtract each of the following problems:

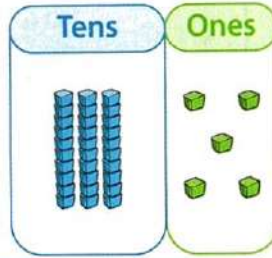
**Example**

Tens	Ones
5	1
- 1	7
3	4



a

Tens	Ones
3	5
- 1	9

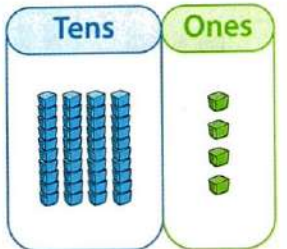


**Notice that:**

- The drawn number is the minuend and we cross out the subtrahend.

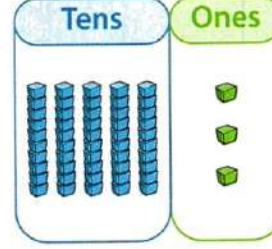
b

Tens	Ones
4	4
- 2	6



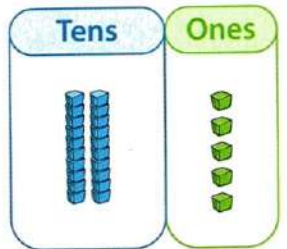
c

Tens	Ones
5	3
- 3	6



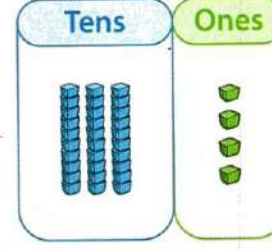
d

Tens	Ones
2	5
- 1	8



e

Tens	Ones
3	4
- 2	7



**I learned**

- How to subtract 2-digit numbers with regrouping 1 tens as 10 ones using the place value mat

1 tens = 10 ones





# Subtracting 3-digit numbers with regrouping tens

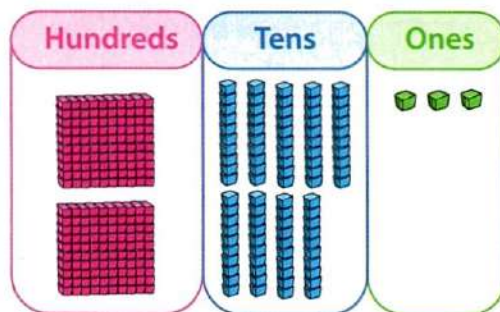
How can we find the difference of  
**293 – 146?**



To subtract using the place value mat, follow the steps:

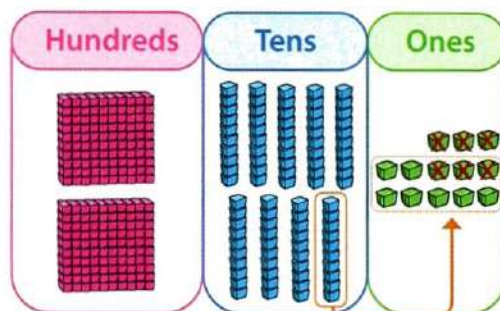
## First

Draw the place value mat of the minuend **293**



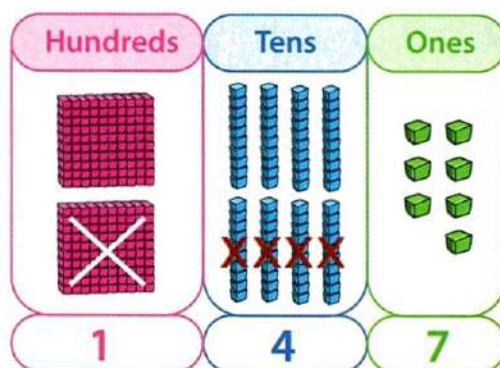
## Second

- 1 Start to subtract with ones, you cannot take away **6 ones** from **3 ones**. So, decompose **1 tens** as **10 ones**
- 2 You get **3 + 10 = 13 ones**.
- 3 Cross out **6 ones** from **13 ones** you get **7 ones**.
- 4 Now there are only **8 tens**.



## Third

- 1 In the tens place cross out **4 tens** from **8 tens** you get **4 tens**.
- 2 In the hundreds place cross out **1 hundreds** from **2 hundreds** you get **1 hundreds**.



## Fourth

The difference is **147**



### Daily Practice:

• Encourage your child to look at the calendar and ask him/her to draw a square around today's date.

**Key words:** Minuend - Difference - Subtract - Regroup.



**Activity 1** Subtract, then estimate the difference:

$$140 - 128$$

a

Hundreds	Tens	Ones

=

Actual difference

Estimation

$$348 - 119$$

b

Hundreds	Tens	Ones

=

Actual difference

Estimation

$$192 - 164$$

c

Hundreds	Tens	Ones

=

Actual difference

Estimation

$$254 - 136$$

d

Hundreds	Tens	Ones

=

Actual difference

Estimation

$$191 - 139$$

e

Hundreds	Tens	Ones

=

Actual difference

Estimation

**Parents' Tips:**

- Encourage your child to solve different subtraction problems with regrouping.



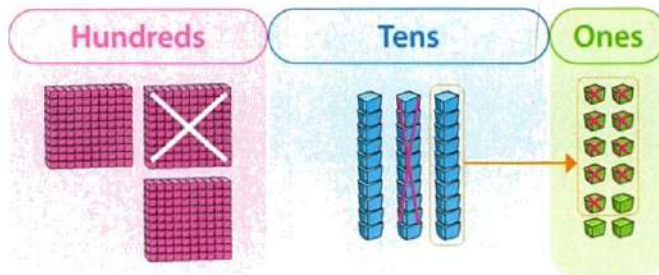
## Activity

2

Estimate using the front-end estimation, then find the difference:

## Example

Hundreds	Tens	Ones
3	3	2
-	1	9
2	1	3

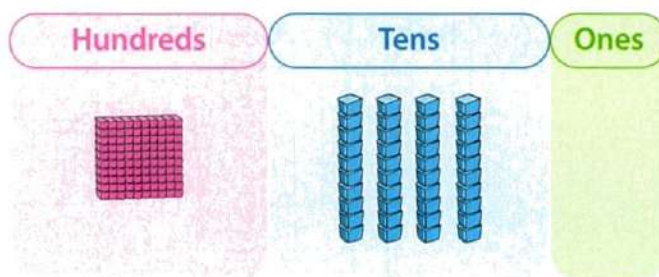


Estimation:

$$300 - 100 = 200$$

a

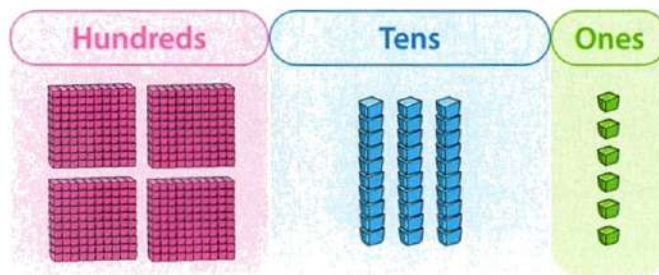
Hundreds	Tens	Ones
1	4	0
-	1	2



Estimation:

b

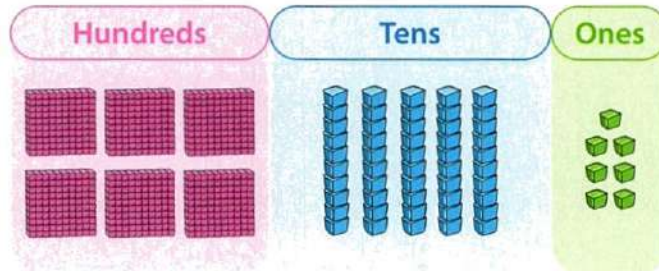
Hundreds	Tens	Ones
4	3	6
-	2	2



Estimation:

c

Hundreds	Tens	Ones
6	5	7
-	3	1

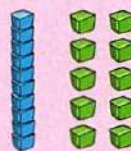


Estimation:



## I learned

- How to subtract 3-digit numbers with regrouping 1 tens as 10 ones.



1 tens = 10 ones





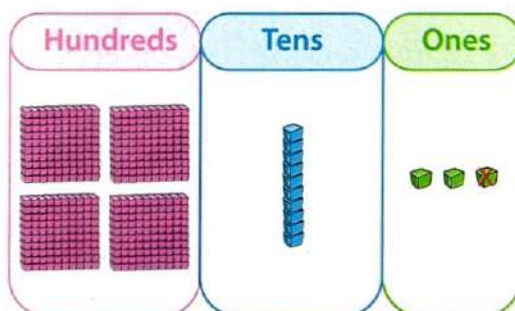
# Subtracting 3-digit numbers with regrouping hundreds

How can we find the difference of  
 **$413 - 231$** ?



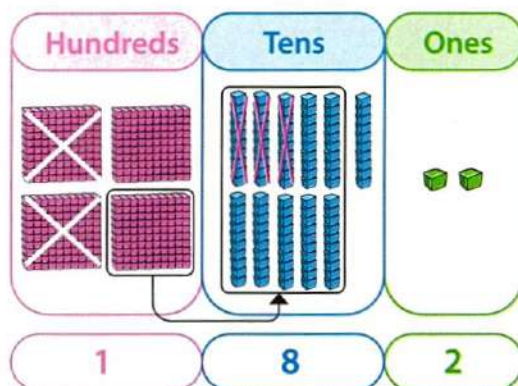
## First

- 1 Draw the place value mat of the minuend **413**
- 2 In the ones place cross out **1 ones** from **3 ones** to get **2 ones**.



## Second

- 1 In the tens place you cannot take **3 tens** from **1 tens**, so, decompose **1 hundred** as **10 tens**.
- 2 You get  
 **$10 \text{ tens} + 1 \text{ tens} = 11 \text{ tens}$**
- 3 Cross out **3 tens** from **11 tens** you get **8 tens**.
- 4 Now there are only **3 hundreds**.
- 5 In the hundreds place cross out **2 hundreds** from **3 hundreds** you get **1 hundreds**.



## Third

The difference is **182**



### Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a blue circle around today's date.
- Key words:** Regroup - Minuend - Difference - Cross out

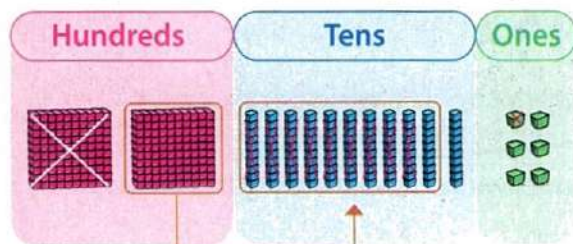


## Activity

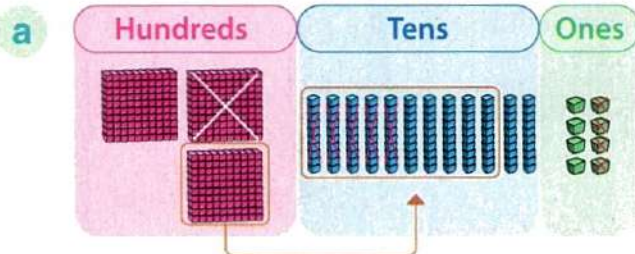
1

## Match:

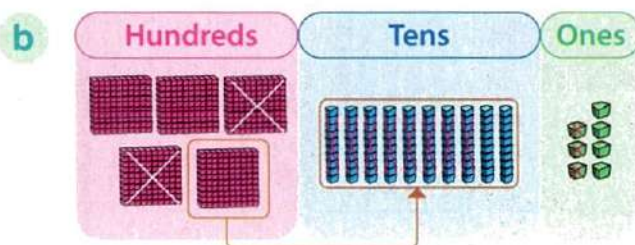
## Example



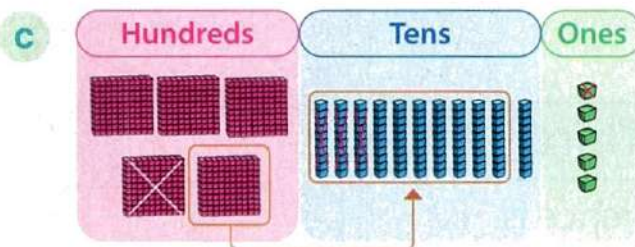
$$328 - 154 = 174$$



$$515 - 131 = 384$$



$$216 - 191 = 25$$



$$507 - 283 = 224$$

## Parents' Tips:

- Encourage your child to solve subtraction problems.

Activity

2

Estimate using front-end estimation, then subtract using the place value mat:

$$708 - 398$$

a

Hundreds	Tens	Ones

=

Actual difference

Estimation

$$516 - 182$$

b

Hundreds	Tens	Ones

=

Actual difference

Estimation

$$235 - 162$$

c

Hundreds	Tens	Ones

=

Actual difference

Estimation



Parents' Tips:

- Ensure that your child can estimate, then find the difference easily.




## Activity

3

Subtract using the place value mat, then color the circle according to the key if the difference (Rounding to 300 in **green**) or (Rounding to 200 in **orange**):


a

$$\begin{array}{r} 458 \\ - 268 \\ \hline \end{array}$$


Hundreds	Tens	Ones

- The difference is .....
- The difference rounding to .....


b

$$\begin{array}{r} 536 \\ - 273 \\ \hline \end{array}$$


Hundreds	Tens	Ones

- The difference is .....
- The difference rounding to .....


c

$$\begin{array}{r} 774 \\ - 609 \\ \hline \end{array}$$


Hundreds	Tens	Ones

- The difference is .....
- The difference rounding to .....

d

$$\begin{array}{r} 643 \\ - 398 \\ \hline \end{array}$$


Hundreds	Tens	Ones

- The difference is .....
- The difference rounding to .....



## I learned

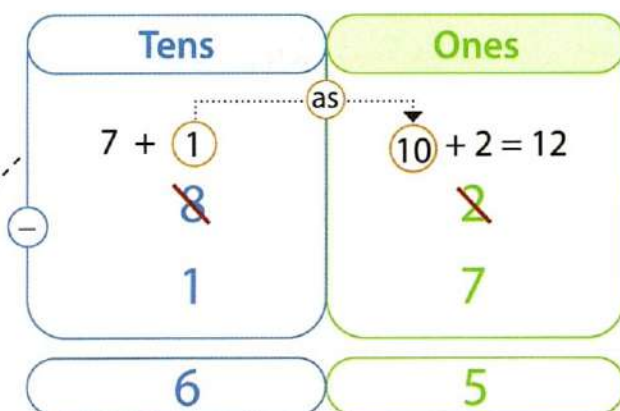
- How to subtract 3-digit numbers with regrouping 1 hundreds as 10 tens.



=



## How to subtract 82 – 17 without using the place value mat



### Second Step

Subtract the tens digits  
**7 tens – 1 tens = 6 tens**  
 So, the final result will be  
**82 – 17 = 65**

### First Step

- 1 In the ones digit we cannot take away **7 ones** from **2 ones**.  
 So, we will take **1 tens** from **8 tens** in the tens place (as **10 ones**).
- 2 Add **10 ones + 2 ones = 12 ones**
- 3 Now subtract  
**12 ones – 7 ones = 5 ones.**
- 4 **8** in the tens place will be **7 tens**.



### Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a red triangle around today's date.
- Ensure that your child can solve subtraction problems with regrouping.

**Key words:** Subtraction




# Activity 1 Subtract each of the following:

a




Tens	Ones
4	5
2	3

b




Tens	Ones
8	3
3	5

c




Tens	Ones
5	2
4	6

d




Tens	Ones
2	8
1	9

e



Tens	Ones
6	0
4	8

f



Tens	Ones
1	9
	7

g




Tens	Ones
7	8
6	6

h



Tens	Ones
2	1
	5

i




Tens	Ones
8	0
4	2

j




Tens	Ones
9	7
4	9

k



Tens	Ones
3	2
	7

l



Tens	Ones
6	1
3	0

## Parents' Tips:

- Help your child subtract different problems.

**Activity 2** Find the difference, estimate, then color according to the key:



a

$$\begin{array}{r} 34 \\ -15 \\ \hline \end{array}$$

Rounding to 30 **red**  
Rounding to 20 **blue**  
Rounding to 10 **yellow**

b

$$\begin{array}{r} 32 \\ -17 \\ \hline \end{array}$$

c

$$\begin{array}{r} 58 \\ -29 \\ \hline \end{array}$$

d

$$\begin{array}{r} 90 \\ -57 \\ \hline \end{array}$$

e

$$\begin{array}{r} 75 \\ -57 \\ \hline \end{array}$$

f

$$\begin{array}{r} 46 \\ -29 \\ \hline \end{array}$$

g

$$\begin{array}{r} 62 \\ -29 \\ \hline \end{array}$$

h

$$\begin{array}{r} 55 \\ -26 \\ \hline \end{array}$$

i

$$\begin{array}{r} 65 \\ -35 \\ \hline \end{array}$$

j

$$\begin{array}{r} 34 \\ -19 \\ \hline \end{array}$$

k

$$\begin{array}{r} 94 \\ -77 \\ \hline \end{array}$$



**I learned**

- How to subtract 2-digit numbers with regrouping using problem solving operation.





# Subtracting 3-digit numbers using problem solving operation



How to subtract **583 – 239** without using the place value mat

Hundreds	Tens	Ones
5	<del>8</del> <sup>7</sup>	<del>3</del> <sup>13</sup>
2	3	9
3	4	4

## First Step

In the ones place:

- 1 We cannot take away 9 ones from 3 ones so, we will take 1 from 8 in the tens place (as 10 ones) and add to 3 ones to get 13 ones.
- 2 Subtract  $13 - 9 = 4$
- 3 8 becomes 7 in the tens place.

## Second Step

In the tens place subtract:

$$7 - 3 = 4$$

## Third Step

In the hundreds place subtract:

$$5 - 2 = 3$$



### Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around today's date.
- Help your child draw a circle around the total number of days he/she spent in school on the number chart.

**Key words:** Subtraction - Tens - Ones - Problem solving



## How to subtract $538 - 182$ without using the place value mat

Hundreds	Tens	Ones
<div> <div>4</div> <div>5</div> </div>	<div> <div>13</div> <div>3</div> </div>	8
1	8	2
3	5	6

### First Step

In the ones place subtract:

$$8 - 2 = 6 \text{ ones}$$

### Second Step

In the tens place:

- ① We can not take away 8 tens from 3 tens so, we will take 1 from 5 in the hundreds place as 10 tens.
- ② Add it to 3 tens to form 13 tens.
- ③ Subtract  $13 - 8 = 5$  tens.
- ④ 5 becomes 4 in the hundreds place.

### Third Step

In the hundreds place subtract:

$$4 - 1 = 3 \text{ hundreds}$$



### Parents' Tips:

- Ensure that your child can solve subtraction problems with regrouping.



## Activity

1

Subtract each of the following:

a

$$\begin{array}{r} 362 \\ - 148 \\ \hline \end{array}$$

b

$$\begin{array}{r} 928 \\ - 386 \\ \hline \end{array}$$

c

$$\begin{array}{r} 590 \\ - 286 \\ \hline \end{array}$$

d

$$\begin{array}{r} 985 \\ - 67 \\ \hline \end{array}$$

e

$$\begin{array}{r} 417 \\ - 253 \\ \hline \end{array}$$

f

$$\begin{array}{r} 494 \\ - 287 \\ \hline \end{array}$$

g

$$\begin{array}{r} 918 \\ - 27 \\ \hline \end{array}$$

h

$$\begin{array}{r} 976 \\ - 394 \\ \hline \end{array}$$

i

$$\begin{array}{r} 674 \\ - 36 \\ \hline \end{array}$$

j

$$\begin{array}{r} 706 \\ - 322 \\ \hline \end{array}$$

k

$$\begin{array}{r} 453 \\ - 327 \\ \hline \end{array}$$

l

$$\begin{array}{r} 330 \\ - 274 \\ \hline \end{array}$$

m

$$\begin{array}{r} 879 \\ - 774 \\ \hline \end{array}$$

n

$$\begin{array}{r} 936 \\ - 29 \\ \hline \end{array}$$

o

$$\begin{array}{r} 987 \\ - 395 \\ \hline \end{array}$$

p

$$\begin{array}{r} 679 \\ - 89 \\ \hline \end{array}$$

## Parents' Tips:

• Help your child subtract different subtraction problems.

**Activity 2** Subtract each of the following:

**Example**

$$472 - 357 = \dots\dots\dots$$

$$\begin{array}{r} \textcircled{6} \textcircled{12} \\ 4 \cancel{7} \cancel{2} \\ - 357 \\ \hline 115 \end{array}$$

**a**  $564 - 187 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**b**  $728 - 95 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**c**  $900 - 723 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**d**  $548 - 163 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**e**  $616 - 207 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**f**  $354 - 63 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**g**  $414 - 88 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**h**  $391 - 264 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**i**  $456 - 299 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**j**  $834 - 194 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$

**k**  $134 - 69 = \dots\dots\dots$

$$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \phantom{000} \end{array}$$





## Activity

3

Match each problem with its suitable answer:

a

$$\begin{array}{r} 407 \\ - 257 \\ \hline \end{array}$$

○

○

205

b

$$\begin{array}{r} 659 \\ - 275 \\ \hline \end{array}$$

○

○

308

c

$$\begin{array}{r} 773 \\ - 508 \\ \hline \end{array}$$

○

○

150

d

$$\begin{array}{r} 592 \\ - 284 \\ \hline \end{array}$$

○

○

384

e

$$\begin{array}{r} 650 \\ - 249 \\ \hline \end{array}$$

○

○

401

f

$$\begin{array}{r} 794 \\ - 589 \\ \hline \end{array}$$

○

○

265

## Parents' Tips:

•Encourage your child to estimate, then find the difference.



**Activity 4** Estimate using front-end estimation, then find the actual result:



a

$$\begin{array}{r} 839 \\ - 387 \\ \hline \end{array}$$

Estimation: .....

Actual result: .....



b

$$\begin{array}{r} 928 \\ - 468 \\ \hline \end{array}$$

Estimation: .....

Actual result: .....



c

$$\begin{array}{r} 689 \\ - 126 \\ \hline \end{array}$$

Estimation: .....

Actual result: .....



d

$$\begin{array}{r} 576 \\ - 284 \\ \hline \end{array}$$

Estimation: .....

Actual result: .....



e

$$\begin{array}{r} 752 \\ - 237 \\ \hline \end{array}$$

Estimation: .....

Actual result: .....



f

$$\begin{array}{r} 939 \\ - 399 \\ \hline \end{array}$$

Estimation: .....

Actual result: .....



g

$$\begin{array}{r} 808 \\ - 277 \\ \hline \end{array}$$

Estimation: .....

Actual result: .....



h

$$\begin{array}{r} 809 \\ - 359 \\ \hline \end{array}$$

Estimation: .....

Actual result: .....



i

$$\begin{array}{r} 930 \\ - 384 \\ \hline \end{array}$$

Estimation: .....

Actual result: .....



**I learned**

- How to subtract using problem solving operation.







# Summary



Create addition and subtraction sentences using the fact family:

$$\begin{aligned}7, 8, 15 \\ 7 + 8 &= 15 \\ 8 + 7 &= 15 \\ 15 - 8 &= 7 \\ 15 - 7 &= 8\end{aligned}$$

Explain the relation between (+) and (-).

Use the number line to subtract.

**Solve subtraction story problems with key words**

Less than  
Difference  
Left over

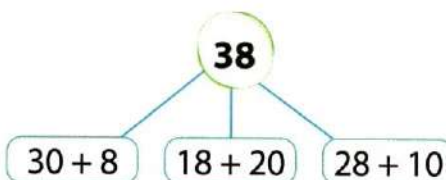
How (much / many) more?  
How (much / many) less?  
How (much / many) left?

Subtract 2-digit and 3-digit numbers with regrouping using problem solving operation.

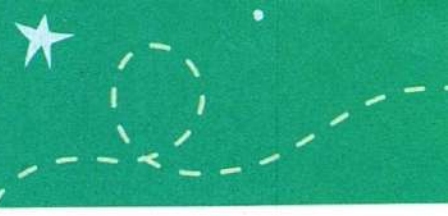
Subtract 2-digit and 3-digit numbers with regrouping 1 tens as 10 ones, 1 hundreds as 10 tens using the place value mat.

Use the cluster strategy to subtract by tens and hundreds.

Decompose 2-digit numbers using different ways.



# General Activities on Chapter 4



1 Solve the following using the place value mat:

**a**

Tens	Ones
5	6
2	8

Tens	Ones

**b**

Tens	Ones
4	3
1	5

Tens	Ones

**c**

Tens	Ones
8	2
4	4

Tens	Ones

**d**

Tens	Ones
5	0
2	3

Tens	Ones

**e**

Tens	Ones
3	7
1	9

Tens	Ones

**f**

Tens	Ones
6	4
3	7

Tens	Ones



2 Solve the following equations using the number line:

a

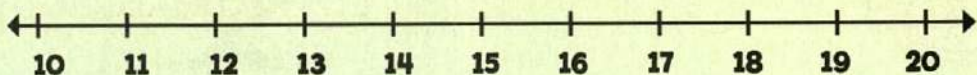
19



5



.....



b

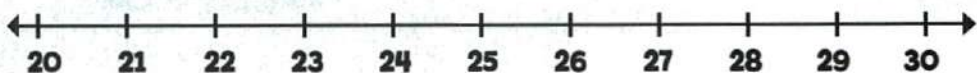
26



1



.....



c

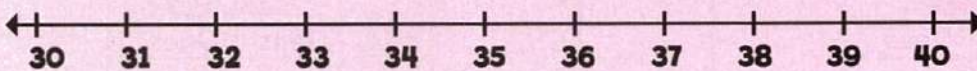
40



3



.....



d

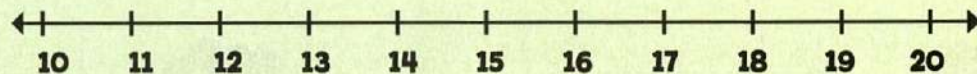
18



2



.....



e

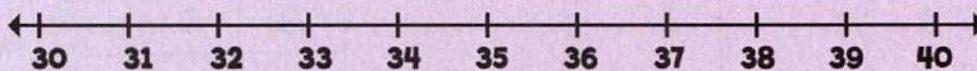
37



4



.....



3 Read, think, then solve:

- a Ali bought **95 cupcakes** for his sister's birthday party, he found that **20** of them have been eaten by his family. **How many cupcakes were left?**



- b Mai had **L.E. 87**, she gave her brother Khaled **L.E. 62**. **How much money was left with her?**



- c Sally had **L.E. 83**, she went to a store to buy a dress that cost **L.E. 195**. **How much more money did she need to be able to buy this dress?**





**4** Use the fact family numbers to write the following addition and subtraction sentences:

**a**



$3 + 4 = 7$   
 $4 + 3 = 7$   
 $7 - 3 = 4$   
 $7 - 4 = 3$

**b**



$5 + 4 = 9$   
 $4 + 5 = 9$   
 $9 - 5 = 4$   
 $9 - 4 = 5$

**c**



$1 + 7 = 8$   
 $7 + 1 = 8$   
 $8 - 1 = 7$   
 $8 - 7 = 1$

**d**



$6 + 9 = 15$   
 $9 + 6 = 15$   
 $15 - 6 = 9$   
 $15 - 9 = 6$

**5** Subtract each of the following:

**a**

$$\begin{array}{r} 582 \\ - 355 \\ \hline \end{array}$$

**b**

$$\begin{array}{r} 560 \\ - 380 \\ \hline \end{array}$$

**c**

$$\begin{array}{r} 980 \\ - 157 \\ \hline \end{array}$$

**d**

$$\begin{array}{r} 926 \\ - 246 \\ \hline \end{array}$$

**e**

$$\begin{array}{r} 736 \\ - 152 \\ \hline \end{array}$$

**f**

$$\begin{array}{r} 238 \\ - 154 \\ \hline \end{array}$$

**g**

$$\begin{array}{r} 510 \\ - 208 \\ \hline \end{array}$$

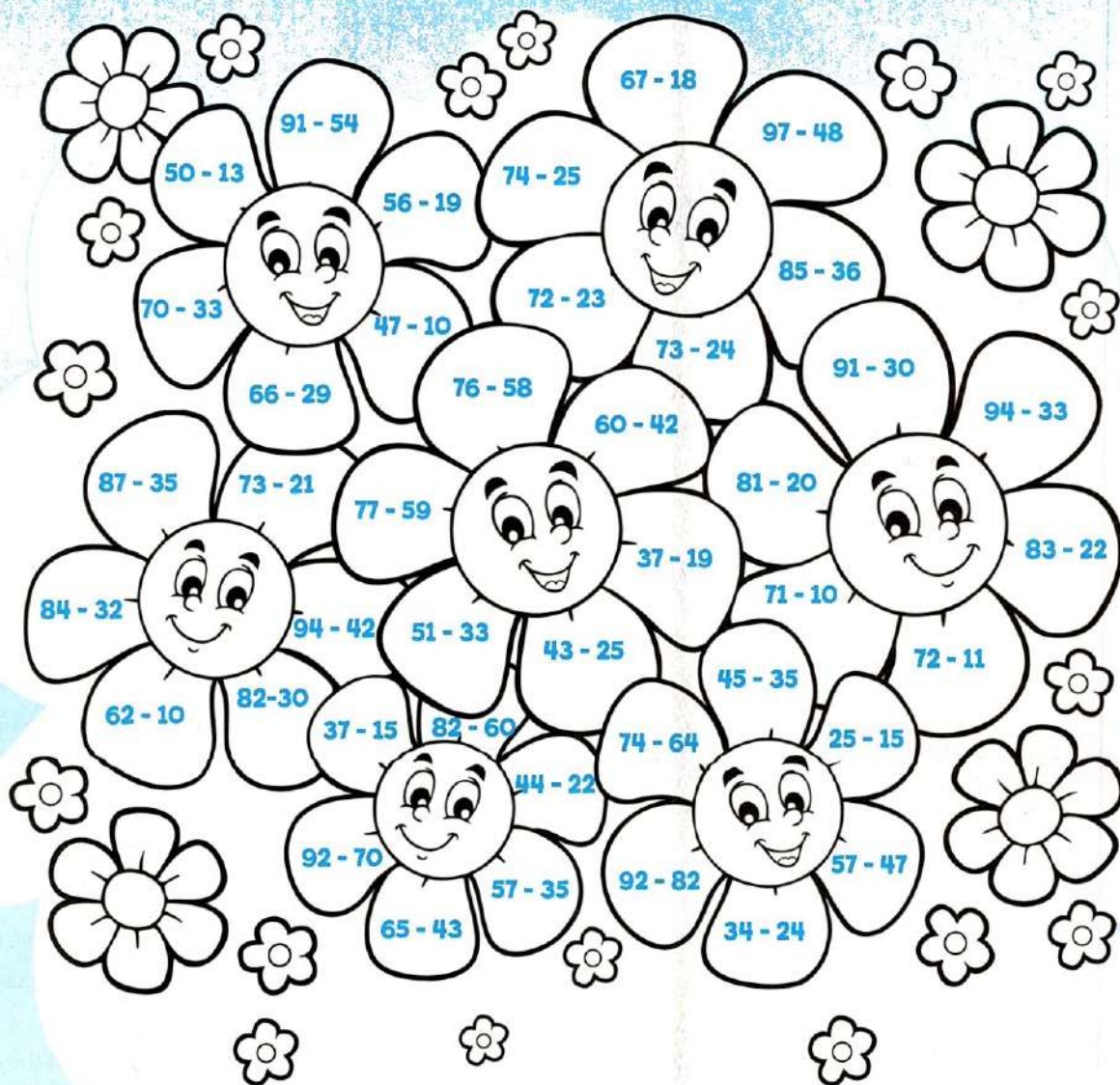
**h**

$$\begin{array}{r} 628 \\ - 130 \\ \hline \end{array}$$



# fun time

Solve the following problems, then color according to the given key:



49



37



18



61



52



22



10



# Chapter

# 5



## Pacing Guide

### Lesson (101): Equal parts and unequal parts

#### Outcomes:

- Identify equal and unequal parts of a whole.
- Create halves, thirds and fourths of circles.

### Lesson (102): Components of a fraction

#### Outcomes:

- Build a fraction using the numerator and denominator digits.
- Identify the components of the fraction.

### Lesson (103): The fraction its numerator is 1

#### Outcomes:

- Investigate fractions with a numerator is 1
- Make connections between the images of fractions and fraction names.
- Identify multiple ways to divide a rectangle into fractional parts.
- Create fractions using a word or number clue.

### Lesson (104): The fraction its numerator is greater than 1

#### Outcomes:

- Investigate fractions with a numerator greater than 1

### Lesson (105): The relation between fractions and the whole one

#### Outcomes:

- The relation between the fraction and the whole one.

### Lesson (106): The relation between fractions of the same whole

#### Outcomes:

- Identify the relation between two fractions if they are the same fraction or different fraction.

### Lessons (107&108): Fractions of a set of objects

#### Outcomes:

- Identify and write fractional parts of a set.
- Compare fractions of a whole and parts of a set.
- Describe equal parts of a whole using fraction vocabulary.

### Lessons (109&110): Fraction story problems

#### Outcomes:

- Solve story problems involving fractions.



Ahmed, do you know how  
can we share this pizza  
equally between us?

Ohhh!



Let's learn how to share  
a pizza equally among 2, 3 or 4  
friends in this chapter.





# Equal parts and unequal parts

Let's share a pizza into different parts.



2 equal parts



3 equal parts



4 equal parts



2 unequal parts



3 unequal parts



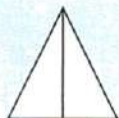
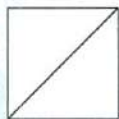
4 unequal parts

- Equal parts mean that all the parts have to be in the same size.
- Unequal parts mean that all parts have to be different in size.

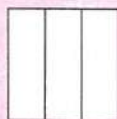
Let's know how to divide some different shapes into equal parts.



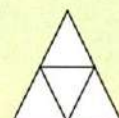
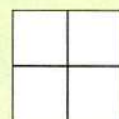
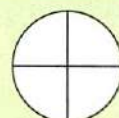
2 equal parts



3 equal parts



4 equal parts



## Daily Practice:

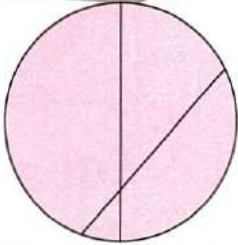
- Invite your child to look at the calendar and ask him/her to draw a circle around today's date in which school begins.
- Ask your child to write the name of the day and the name of the day before and the day after.

**Key words:** Equal parts - Unequal parts - Same - Different



**Activity 1** Notice the shape with its parts and color the correct word:

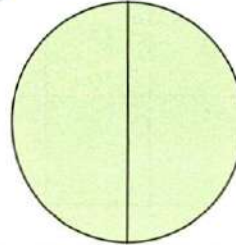
**Example**



equal parts

unequal parts

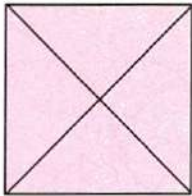
a



equal parts

unequal parts

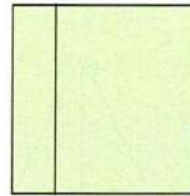
b



equal parts

unequal parts

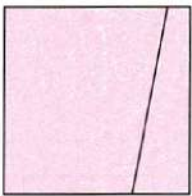
c



equal parts

unequal parts

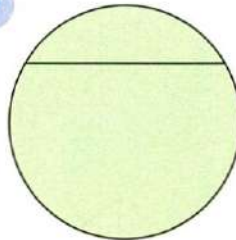
d



equal parts

unequal parts

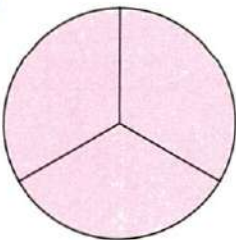
e



equal parts

unequal parts

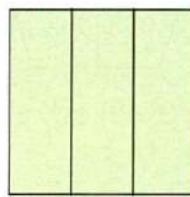
f



equal parts

unequal parts

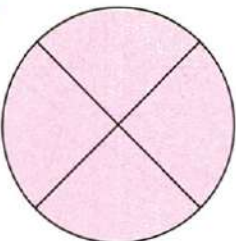
g



equal parts

unequal parts

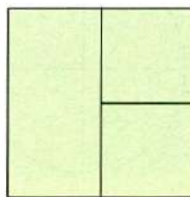
h



equal parts

unequal parts

i



equal parts

unequal parts



**Parents' Tips:**

• Help your child to recognize the meaning of equal parts and unequal parts of some shapes.

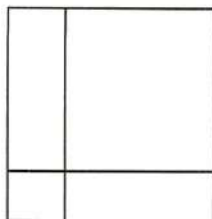
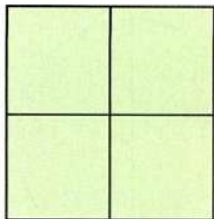


## Activity

2

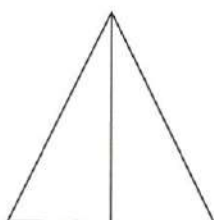
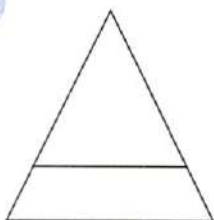
Look at each set of shapes, then color the shape with equal parts:

Example

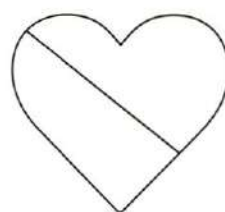
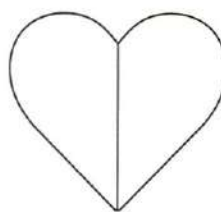


Equal  
parts

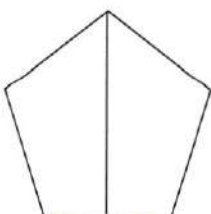
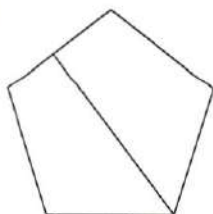
a



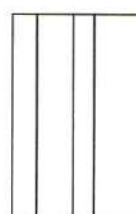
b



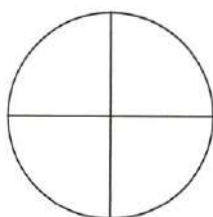
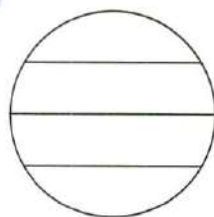
c



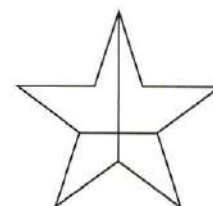
d



e



f



## Parents' Tips:

- Encourage your child to know the shapes which are divided into equal parts and ask him/her to color them.

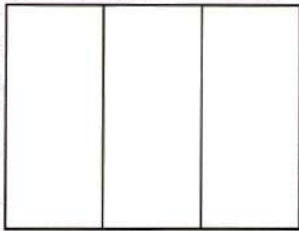
Activity

3

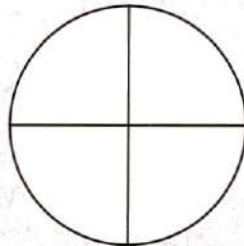
Write the number of equal parts of each shape if the shape has unequal parts write 0:

# HOW MANY EQUAL PARTS?

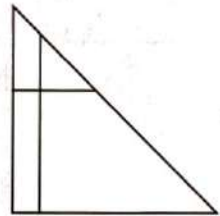
a



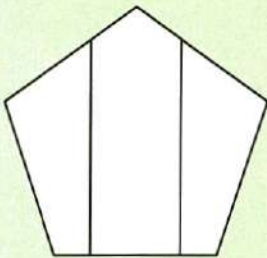

b



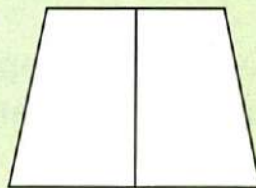

c



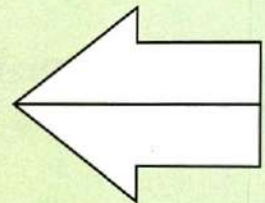

d



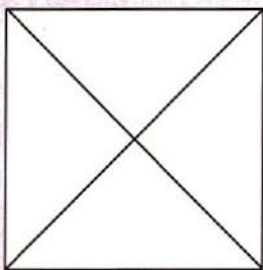

e



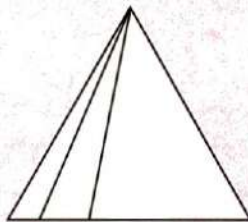

f



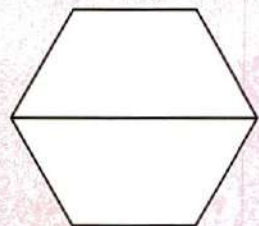

g




h




i

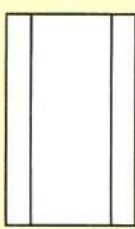
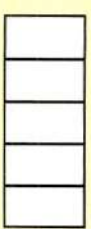
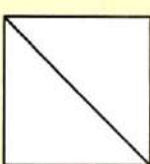
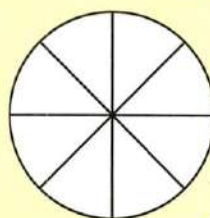
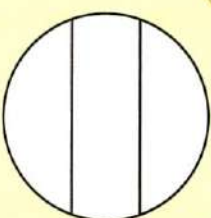
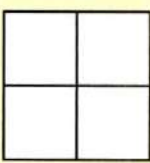



Parents' Tips:

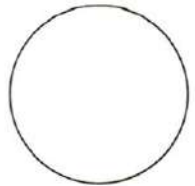

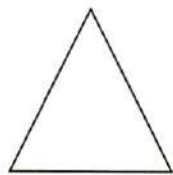
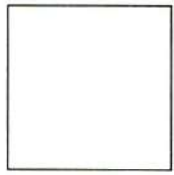
- Give your child some shapes and ask him/her to tell you the number of equal parts of each shape.



**Activity 4** Are the parts equal? Color in (Yes) or (No):

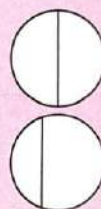
<b>a</b>  <input type="radio"/> Yes <input type="radio"/> No	<b>b</b>  <input type="radio"/> Yes <input type="radio"/> No	<b>c</b>  <input type="radio"/> Yes <input type="radio"/> No
<b>d</b>  <input type="radio"/> Yes <input type="radio"/> No	<b>e</b>  <input type="radio"/> Yes <input type="radio"/> No	<b>f</b>  <input type="radio"/> Yes <input type="radio"/> No

**Activity 5** Draw lines to divide each shape into equal parts according to the given number of equal parts:

<b>a</b>  2 equal parts	<b>b</b>  3 equal parts	<b>c</b>  2 equal parts	<b>d</b>  4 equal parts
--	--	--	--


**I learned**

- Recognizing the equal parts.
- Recognizing the unequal parts.



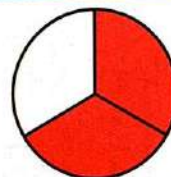


# Components of a fraction

- A fraction is a part of a whole.
- To form a fraction you must use equal parts of a whole.



- The opposite circle is divided into a 3-equal part.
- The red part can be written as fraction  $\frac{2}{3}$



## The numerator

is

The top number that shows how many equal parts we have (colored parts).

## The denominator

is

The bottom number that shows how many equal parts in the whole (all equal parts).

$$\frac{2}{3}$$

## A fraction bar

is

A line between the numerator and denominator.



### Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a blue circle around today's date.

**Key words:** Fraction - Fraction bar - Denominator - Whole - Numerator - Equal parts



## Activity

1

Build the fraction, then color:

## Example

A fraction, its  
numerator is 1 and  
its denominator is 3

$$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4}$$



a

A fraction, its  
numerator is 2 and  
its denominator is 3

$$\frac{1}{3} \quad \frac{2}{4} \quad \frac{2}{3}$$

b

A fraction, its  
numerator is 3 and  
its denominator is 4

$$\frac{2}{3} \quad \frac{2}{4} \quad \frac{3}{4}$$



c

A fraction, its  
numerator is 1 and  
its denominator is 4

$$\frac{1}{2} \quad \frac{1}{4} \quad \frac{1}{3}$$

d

A fraction, its  
numerator is 2 and  
its denominator is 4

$$\frac{2}{4} \quad \frac{2}{3} \quad \frac{1}{4}$$

e

A fraction which  
represents a half

$$\frac{1}{3} \quad \frac{2}{4} \quad \frac{2}{3}$$

## Parents' Tips:

• Help your child build some fractions in which its numerator and denominator are given.

**Key words:** Fraction - Numerator - Denominator



**Activity 2** Build the fraction, then match:

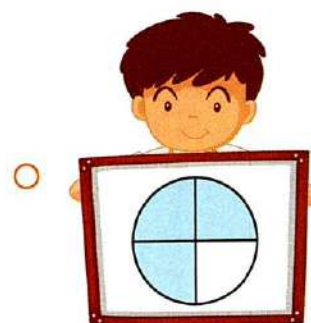
- a** I'm a fraction,  
my numerator  
is **1** and my  
denominator is **4**

.....  
—  
.....



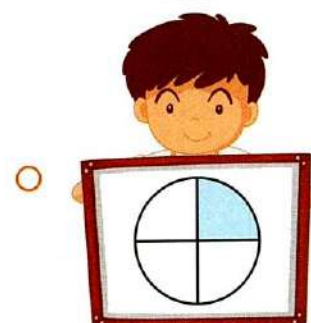
- b** I'm a fraction,  
my numerator  
is **2** and my  
denominator is **3**

.....  
—  
.....



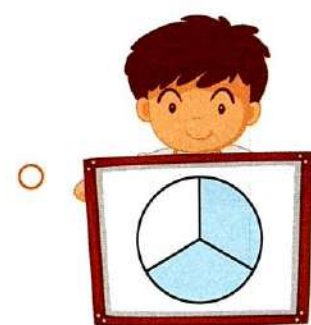
- c** I'm a fraction,  
my numerator  
is **3** and my  
denominator is **4**

.....  
—  
.....



- d** I'm a fraction,  
my numerator  
is **3** and my  
denominator is **3**

.....  
—  
.....



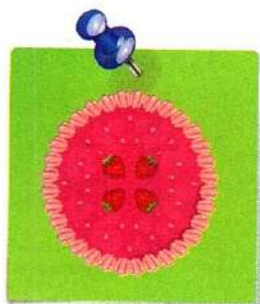
**I learned**

- How to build a fraction.





## 1<sup>st</sup> THE HALF



1  
One whole



$\frac{1}{2}$   
2 equal parts  
Each part is a half ( $\frac{1}{2}$ ).

Numerator is the top number of the fraction.

Denominator is the bottom number of the fraction.

The fraction bar is the line in between the top and the bottom numbers.

1 out of 2 equal parts

One whole = 2 halves

- 2 is the total number of equal parts.
- The fraction is called one half.
- This fraction we can read as 1 over 2.

### Activity 1 Trace:

$\frac{1}{2}$   
Half

$\frac{1}{2}$   
Half

$\frac{1}{2}$   
Half

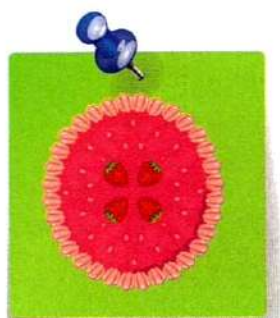
$\frac{1}{2}$   
Half

#### Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to count the number of days he/she spent in school and draw a circle around the total number of days in the 120 chart.

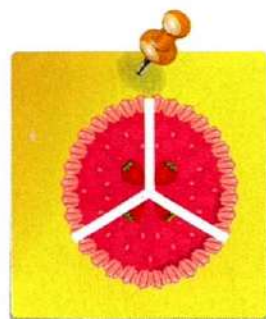
**Key words:** Equal parts - Halves - Half - Numerator - Denominator - Fraction bar

# 2<sup>nd</sup> THE THIRD



1

One whole

 $\frac{1}{3}$ 

3 equal parts

Each part is a third ( $\frac{1}{3}$ ).

Numerator  $\rightarrow$  **1**

---

Denominator  $\leftarrow$  **3**

**Fraction bar**

1 out of  
3 equal  
parts.

One whole  
=  
3 thirds

- 3 is the total number of equal parts.
- The fraction is called one third.
- This fraction we can read as 1 over 3.

## Activity 2 Trace:

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$
Third	Third	Third	Third

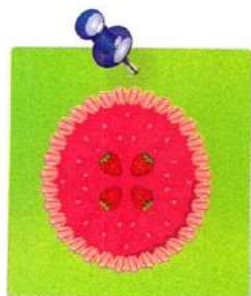
### Parents' Tips:

- Encourage your child to recognize the fraction of the third.

**Key words:** Third - Numerator - Denominator - Fraction - Equal parts



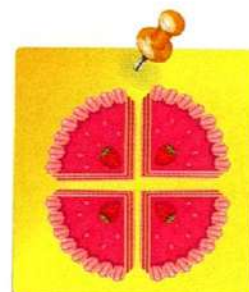
# 3<sup>rd</sup> THE QUARTER (FOURTH)



1

One whole

When divide a cake into  
four equal parts,  
each part is quarter  
of the whole cake.

 $\frac{1}{4}$ 

**4 equal parts**  
Each part is a quarter  
or a fourth ( $\frac{1}{4}$ ).

Numerator

1

Fraction bar

Denominator

4

1 out of  
4 equal  
parts.

One whole  
=  
4 quarters

- 4 is the total number of equal parts.
- The fraction is called one fourth.
- This fraction we can read as 1 over 4

## Activity 3 Trace:

$$\frac{1}{4}$$

Fourth  
Quarter

$$\frac{1}{4}$$

Fourth  
Quarter

$$\frac{1}{4}$$

Fourth  
Quarter

$$\frac{1}{4}$$

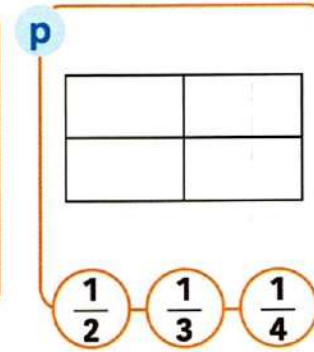
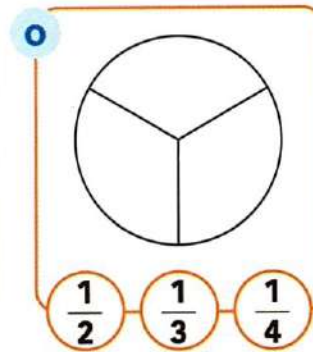
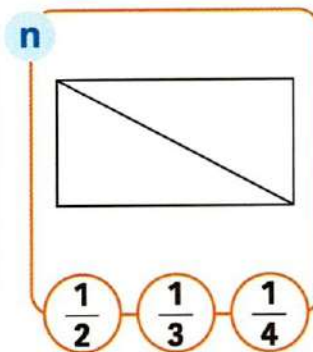
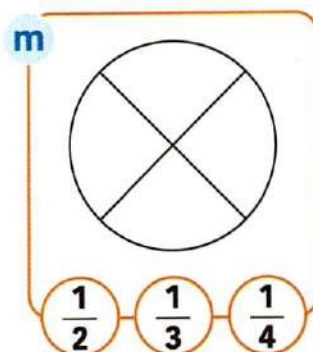
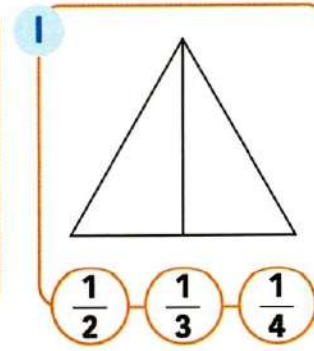
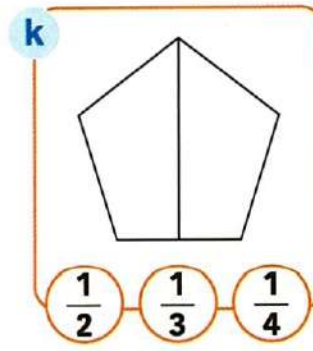
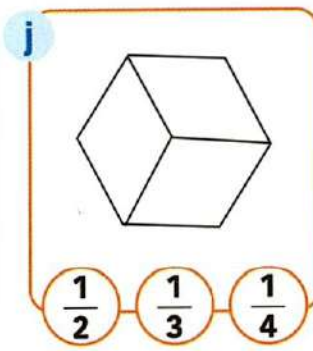
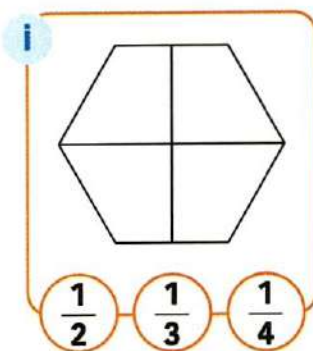
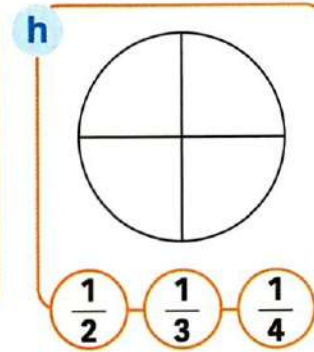
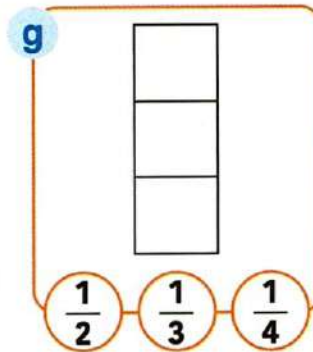
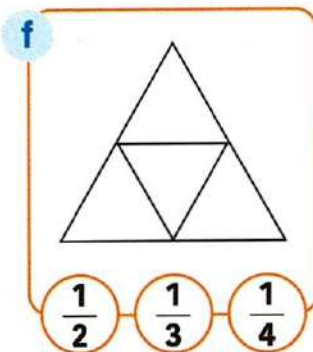
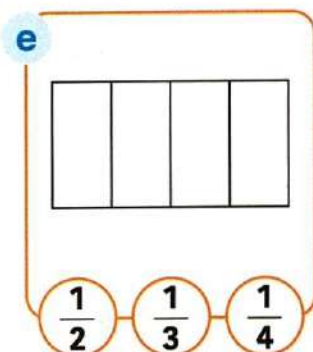
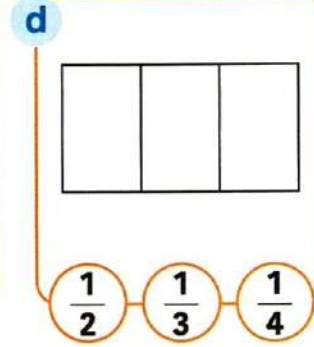
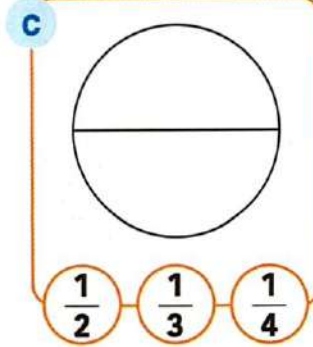
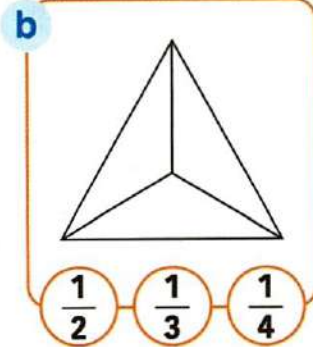
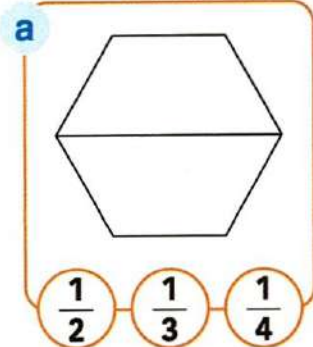
Fourth  
Quarter

### Parents' Tips:

- Encourage your child to recognize the fraction of the fourth.

**Key words:** Numerator - Denominator - Fraction bar - Fourth - Quarter - Fraction - Equal parts

**Activity 4** Color one of the parts, then color the matching fraction:



**Parents' Tips:**

- Encourage your child to color some parts of some shapes according to the fraction.

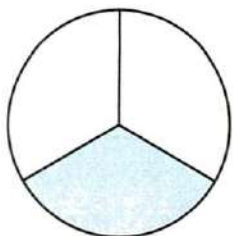


## Activity

5

Write the fraction in words that represents the shaded part:

## Example

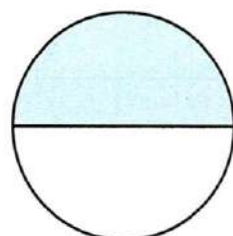


Third

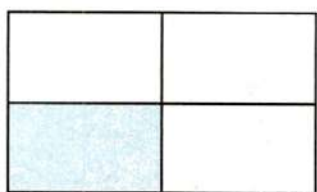
a



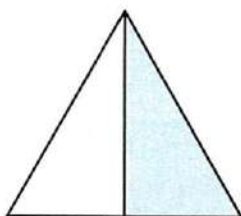
b



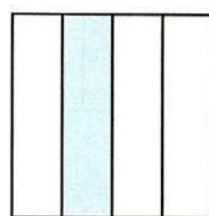
c



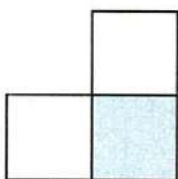
d



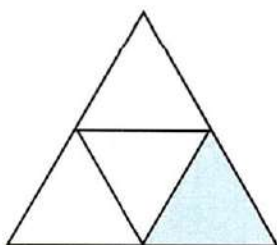
e



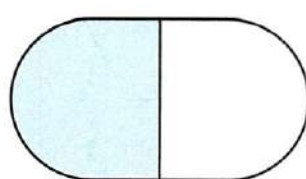
f



g

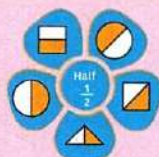


h



## I learned

- How to read and represent halves, thirds and fourths fractions.





# The fraction its numerator is greater than 1

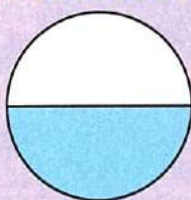
When we build a fraction:

**First:** we count the number of the shaded parts and write it as a numerator.

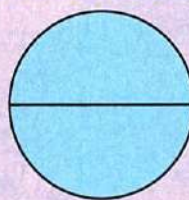
**Second:** we count the number of all equal parts and write it as a denominator.



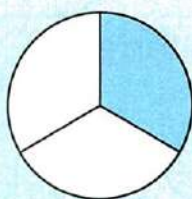
## Observe the shaded part



The shaded part is  $\frac{1}{2}$   
of the circle.  
(One half)



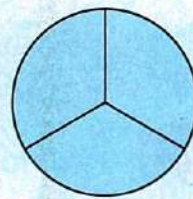
The shaded part is  $\frac{2}{2}$   
so it is a whole circle.  
(Two halves)



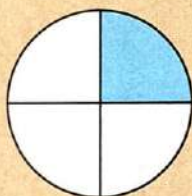
The shaded part is  $\frac{1}{3}$   
of the circle.  
(One third)



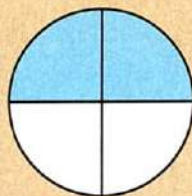
The shaded part is  $\frac{2}{3}$   
of the circle.  
(Two thirds)



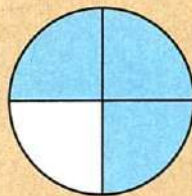
The shaded part is  $\frac{3}{3}$   
so it is a whole circle.  
(Three thirds)



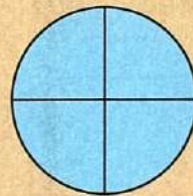
The shaded part is  $\frac{1}{4}$   
of the circle.  
(One quarter)



The shaded part is  $\frac{2}{4}$   
of the circle.  
(Two quarters)



The shaded part is  $\frac{3}{4}$   
of the circle.  
(Three quarters)



The shaded part is  $\frac{4}{4}$   
so it is a whole circle.  
(Four quarters)



### Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the day and the name of the day before and the day after.

**Key words:** Quarter - Third - Halves - Half - Whole - Fraction - Numerator - Equal parts

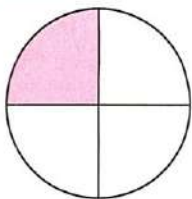


## Activity

1

Tick (✓) the fraction that the colored part shows:

## Example

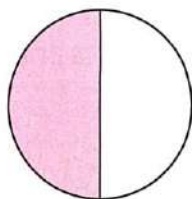


☐  $\frac{1}{2}$

☐  $\frac{3}{4}$

☒  $\frac{1}{4}$

a

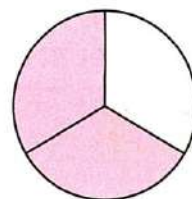


☐  $\frac{2}{3}$

☐  $\frac{1}{2}$

☐  $\frac{1}{3}$

b

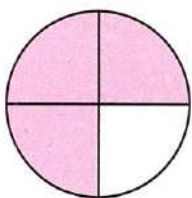


☐  $\frac{3}{4}$

☐  $\frac{2}{4}$

☐  $\frac{2}{3}$

c

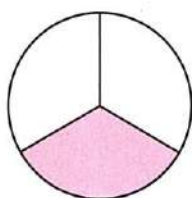


☐  $\frac{2}{4}$

☐  $\frac{3}{4}$

☐  $\frac{1}{3}$

d

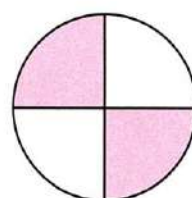


☐  $\frac{1}{2}$

☐  $\frac{2}{3}$

☐  $\frac{1}{3}$

e



☐  $\frac{1}{3}$

☐  $\frac{2}{2}$

☐  $\frac{2}{4}$

## Activity

2

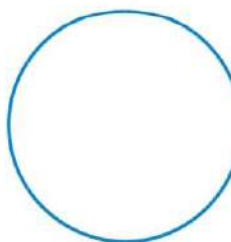
Draw lines to divide each shape according to the given fraction, then color it:

## Example



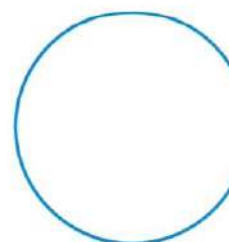
$\frac{1}{2}$

a



$\frac{2}{3}$

b



$\frac{1}{4}$

c



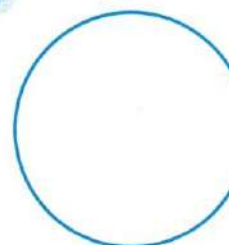
$\frac{1}{3}$

d



$\frac{3}{4}$

e



$\frac{2}{4}$

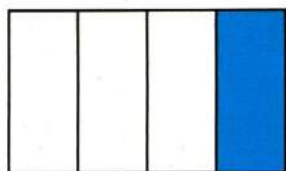
## Parents' Tips:

- Encourage your child to determine the fraction that represents the shaded part(s).
- Encourage your child to divide some shapes into known fractions.

**Activity 3** Notice each fraction and color:

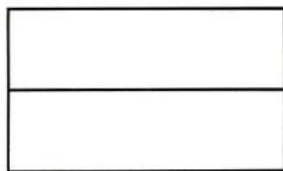
- When the denominator is an **odd** number, color in **blue** and when the denominator is an **even** number color in **red**:

**Example**



$$\frac{1}{4}$$

a



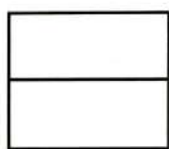
$$\frac{2}{2}$$

b



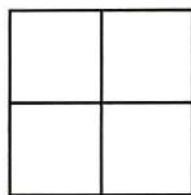
$$\frac{2}{3}$$

c



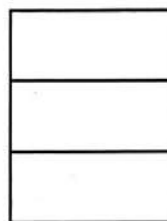
$$\frac{1}{2}$$

d



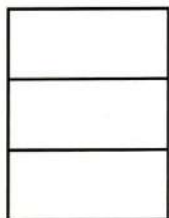
$$\frac{2}{4}$$

e



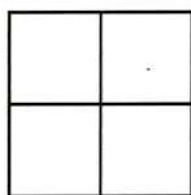
$$\frac{1}{3}$$

f



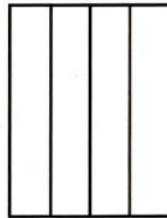
$$\frac{3}{3}$$

g



$$\frac{3}{4}$$

h



$$\frac{4}{4}$$

**Parents' Tips:**

- Encourage your child to build fractions.



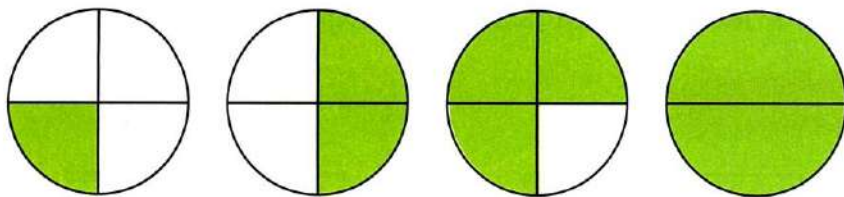
## Activity

4

Underline the shapes that represent the shown fraction:

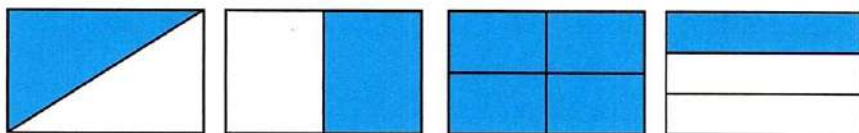
a

$$\frac{3}{4}$$



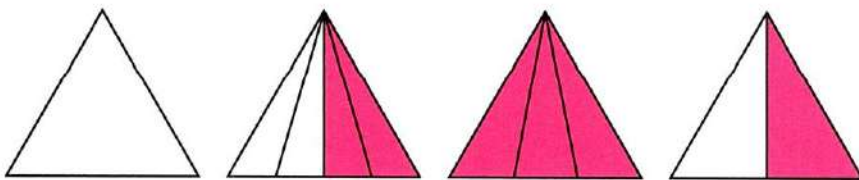
b

$$\frac{1}{2}$$



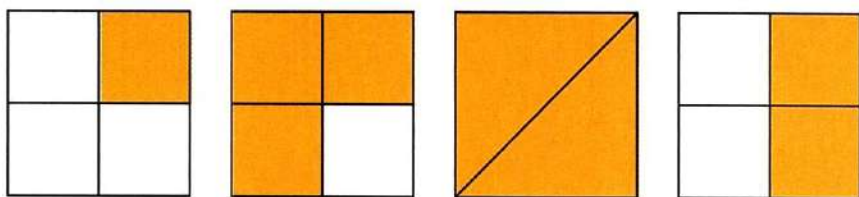
c

$$\frac{3}{3}$$



d

$$\frac{2}{4}$$

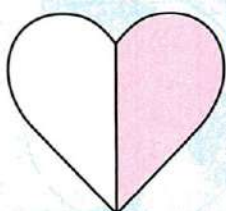


## Parents' Tips:

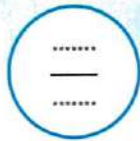
- Encourage your child to build fractions.

**Activity 5** Tick (✓) the shape that represents a fraction, then write the fraction:

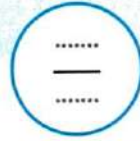
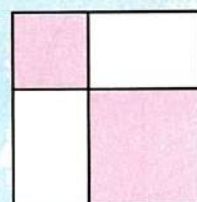
a



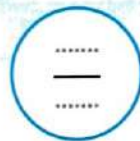
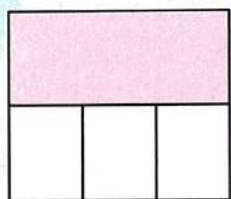
b



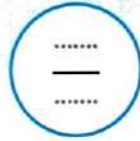
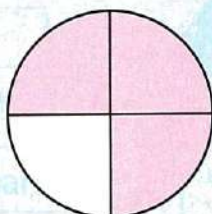
c



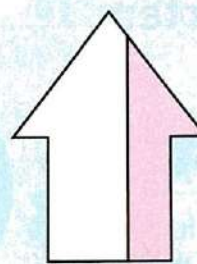
d



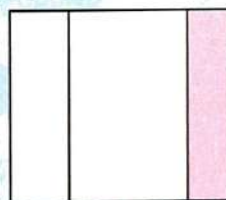
e



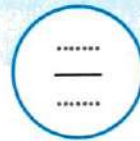
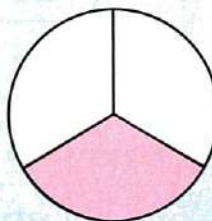
f



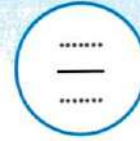
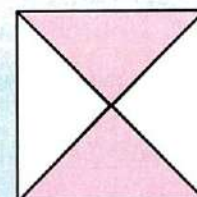
g



h



i

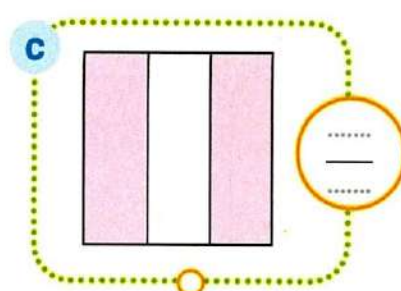
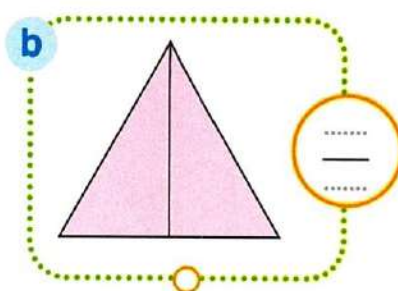
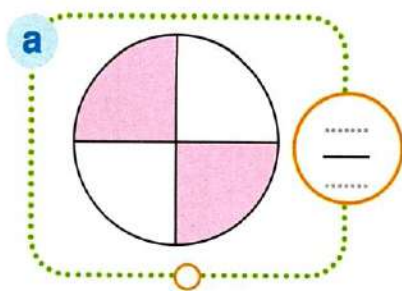




## Activity

6

Write the fraction of colored parts, then match the fractions with its word form:

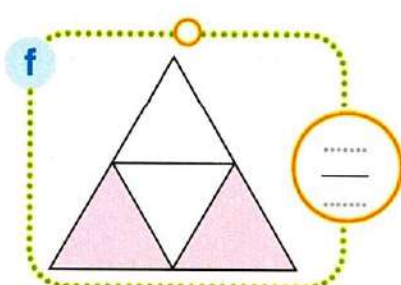
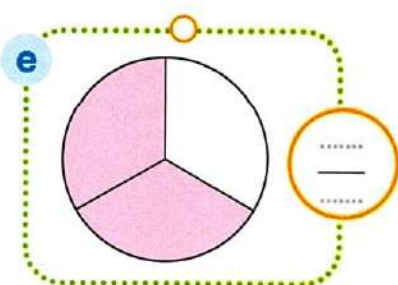
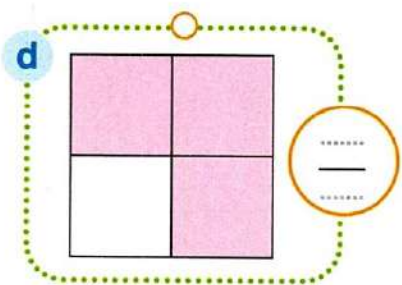


Three  
quarters

Two  
thirds

Two  
quarters

Two  
halves



## I learned

- How to write a fraction where its numerator is more than 1 as:
  - Fraction form.
  - Word form.





# The relation between fractions and the whole one

One whole ( 1 )



1 whole			
$\frac{1}{2}$	$\frac{1}{2}$		
$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

One whole = 2 halves

$$1 = \frac{1}{2} + \frac{1}{2} = 1$$

One whole = 3 thirds

$$1 = \frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1$$

One whole = 4 quarters or 4 fourths

$$1 = \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = 1$$

One half = 2 quarters or 2 fourths

$$\frac{1}{2} = \frac{1}{4} + \frac{1}{4} = \frac{1}{2}$$

## Daily Practice:

Invite your child to look at the calendar and ask him/her to circle around today's date and color yesterday's date with yellow.

**Key words:** One whole - Halves - Third - Quarter - Fourth

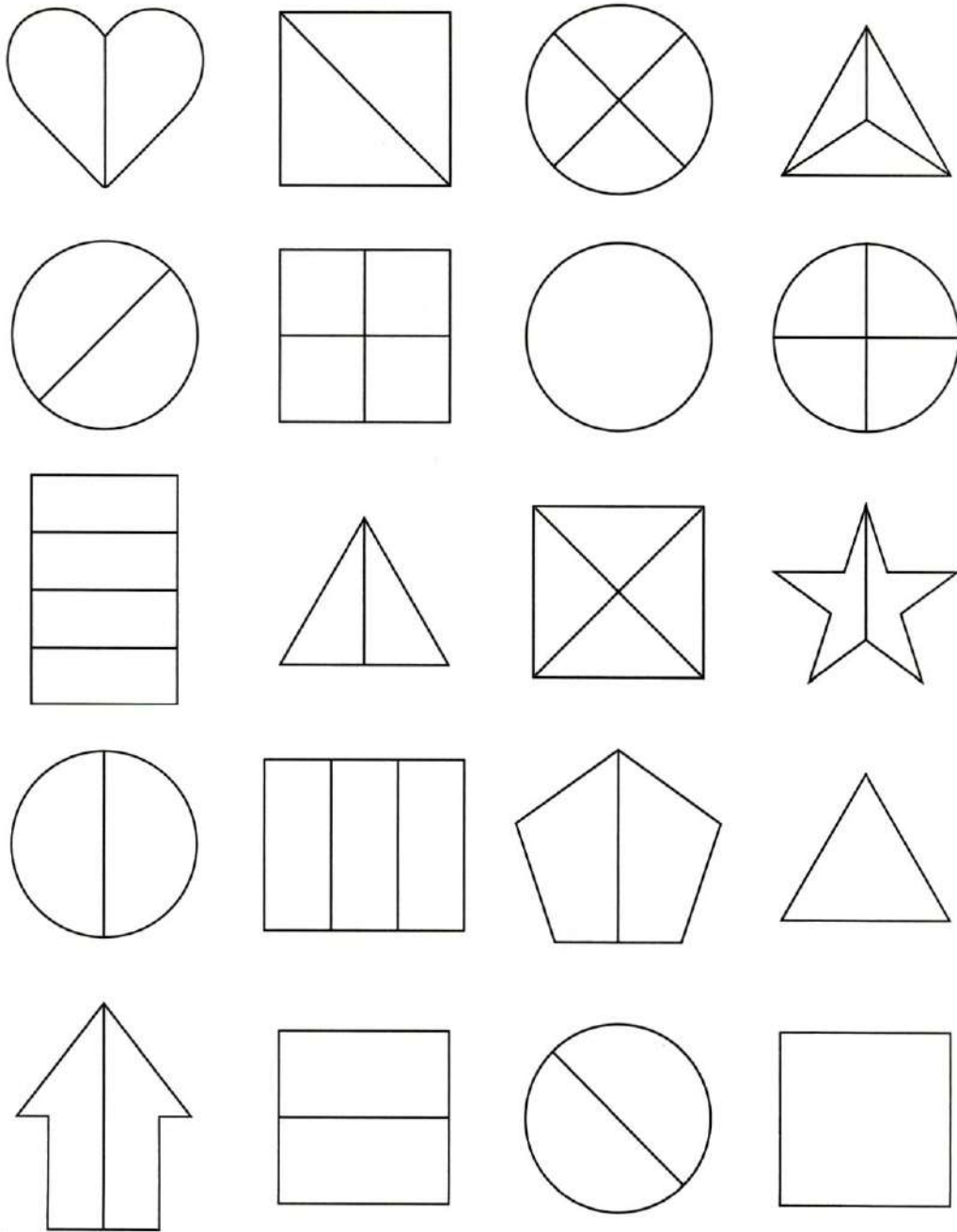


## Activity

1

## Look and color:

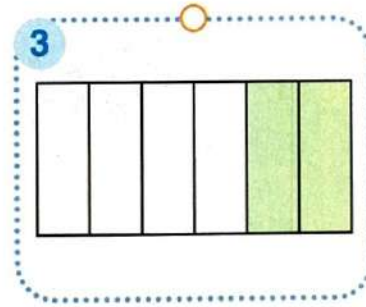
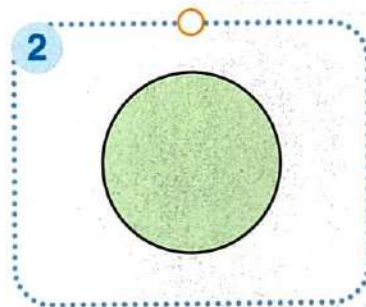
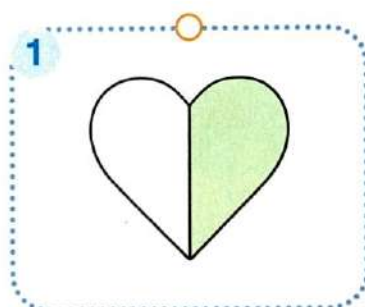
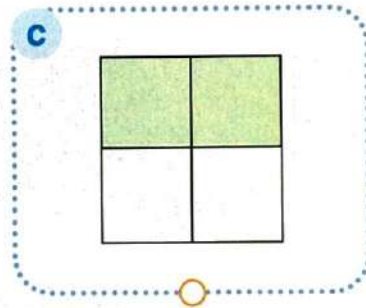
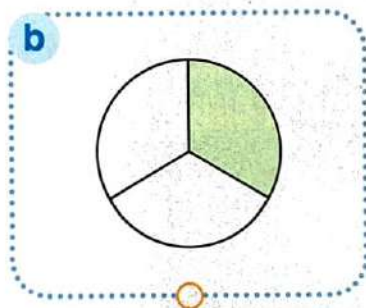
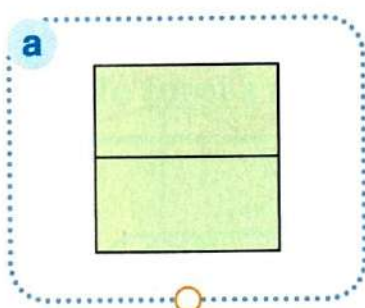
Color the shapes showing 1 whole without a separator in **blue**. Color the shapes split into 2 equal shares or halves in **red**. Color the shapes split into 3 equal shares or thirds in **green** and color the shapes split into 4 equal shares or fourths in **brown**:



## Parents' Tips:

- Encourage your child to color each shape according to the fraction.
- Let your child look at the previous page, then ask him/her to tell you what happens to the size of the parts where rows are cut into more pieces.

**Activity 2** Join the shapes which represent the same fractions:



**Activity 3** Complete each of the following:

**a**  $\frac{1}{2} + \frac{1}{2} = \dots\dots\dots$

**b**  $\frac{1}{4} + \frac{1}{4} = \dots\dots\dots$

**c**  $\frac{1}{3} + \frac{1}{3} + \frac{\dots}{\dots} = 1$

**d**  $\frac{1}{4} + \frac{1}{4} + \frac{1}{2} = \dots\dots\dots$



## I learned

- How to recognize the fractions that make the whole one.

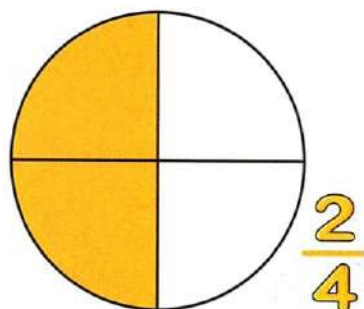
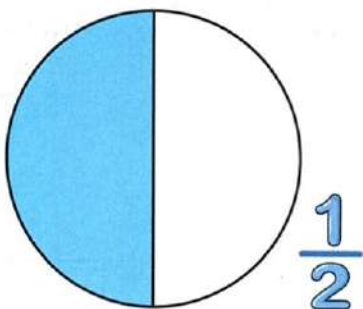
One whole (1)			
$\frac{1}{2}$		$\frac{1}{2}$	
$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$





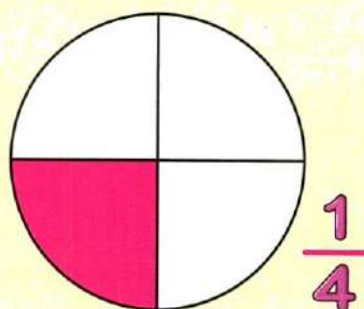
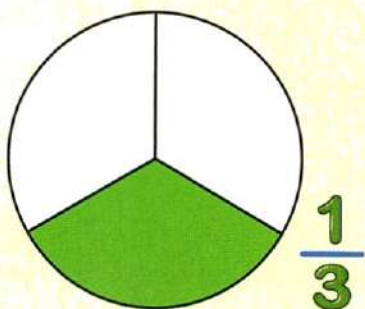
# The relation between fractions of the same whole

Look at the following fractions:



These two fractions are equal because they have the same shaded area of the same whole.

**BUT**



These two fractions are not equal because the shaded parts in each of them are different in size.

## Daily Practice:

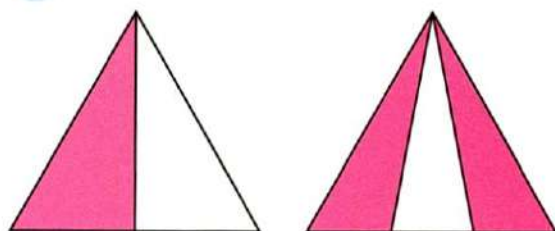
- Invite your child to look at the calendar and ask him/her to draw a triangle around today's date, then color yesterday's date in blue.

**Key words:** Same - Different - Equal - Fraction



**Activity 1** Color the correct word if the two fractions are the same or different:

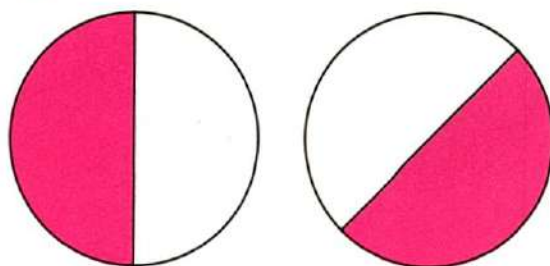
a



Same

Different

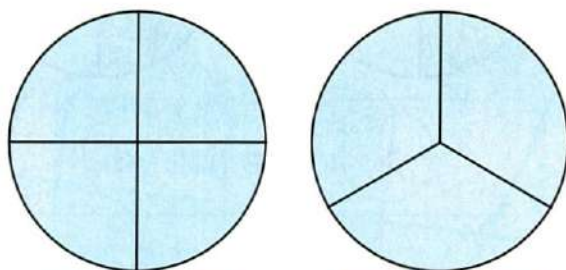
b



Same

Different

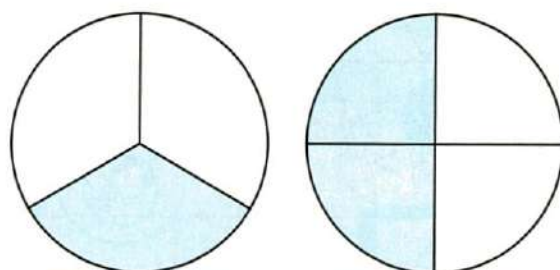
c



Same

Different

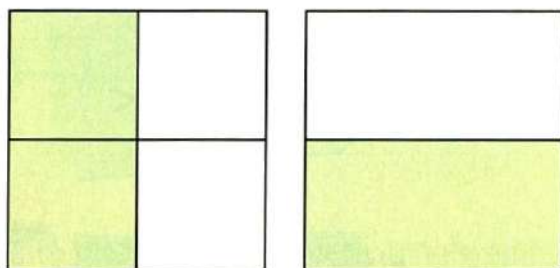
d



Same

Different

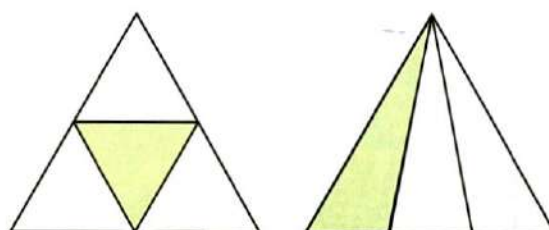
e



Same

Different

f



Same

Different

**Parents' Tips:**

- Let your child look carefully at each point and identify if the two fractions are the same or different.



## Activity 2

Observe the shaded parts, then color the correct sign (&lt;, &gt; or =):

**a**

>   =   <

**b**

>   =   <

**c**

>   =   <

**d**

>   =   <

**e**

>   =   <

**f**

>   =   <



## I learned

- How to know if two fractions are the same or different.

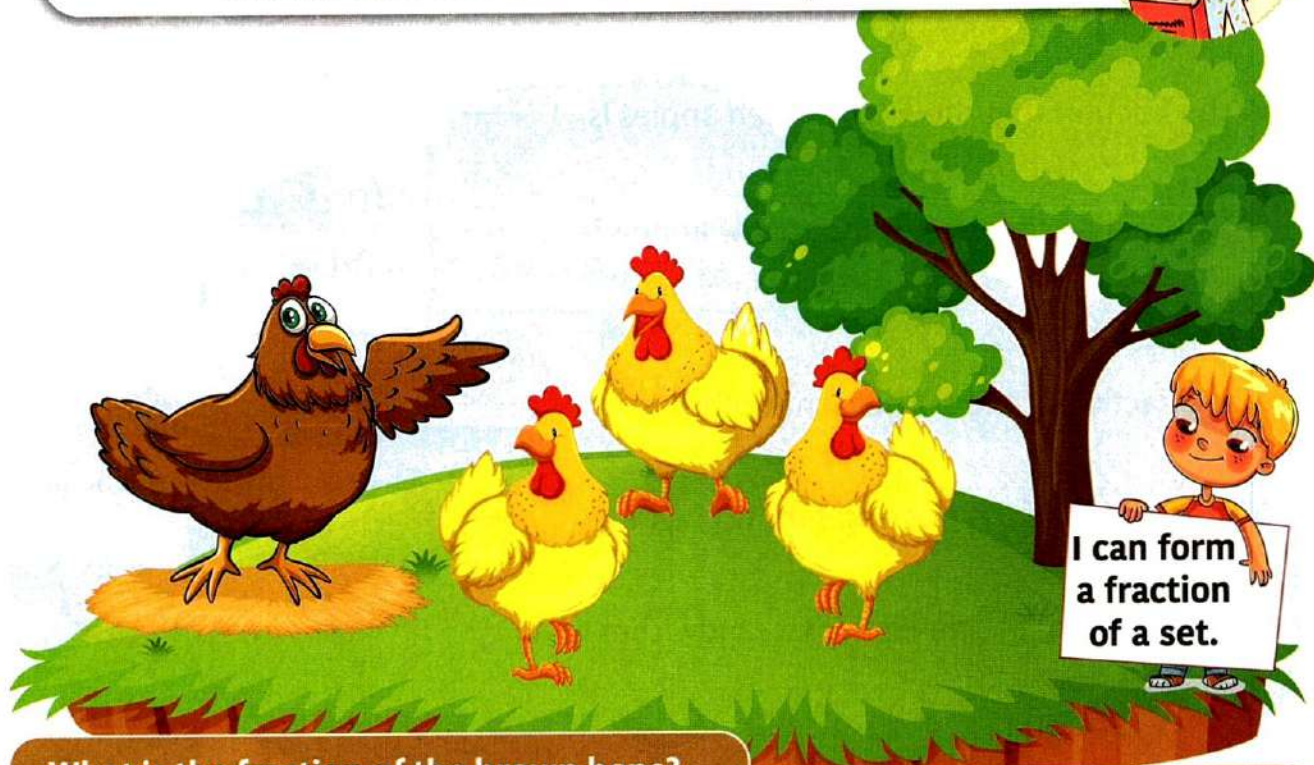
$$\frac{1}{2} \text{ (circle with 1/2 shaded) } = \frac{2}{4} \text{ (circle with 2/4 shaded) }$$





# Fractions of a set of objects

There is a set of 4 hens on a farm, one of them is brown and the other three are yellow.



What is the fraction of the brown hens?

- The number of brown hens is 1
- The number of all hens is 4
- **So, the fraction of brown hens is  $\frac{1}{4}$**

What is the fraction of the yellow hens?

- The number of yellow hens is 3
- The number of all hens is 4
- **So, the fraction of yellow hens is  $\frac{3}{4}$**

What is the fraction of the brown and yellow hens?

- The number of brown and yellow hens is 4
- The number of all hens is 4
- **So, the fraction of brown and yellow hens is  $\frac{4}{4}$**



## Daily Practice:

- Invite your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to count the number of days he/she spent in school and draw a circle around the total number of days in the 120 chart.

**Key words:** Set - Fraction - All



## Activity

1

Look, then answer:

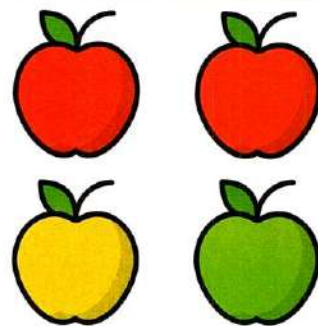
a

- The fraction that shows the red apples is
- The fraction that shows the green apples is
- The fraction that shows the yellow apples is

_____
_____
_____

_____
_____
_____

_____
_____
_____



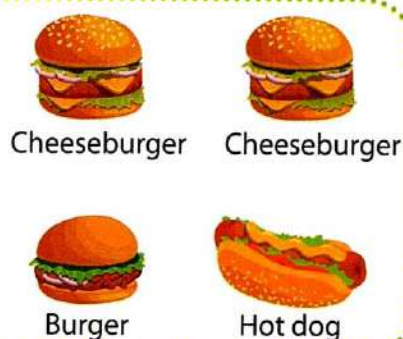
b

- The fraction of the burger sandwiches is
- The fraction of the hot dog sandwiches is
- The fraction of the cheeseburger sandwiches is

_____
_____
_____

_____
_____
_____

_____
_____
_____



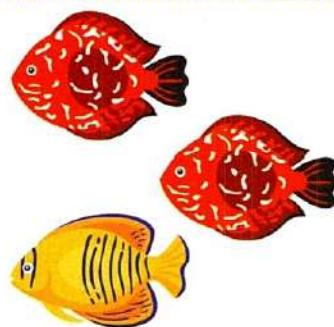
c

- The fraction of the red and yellow fish is
- The fraction of the red fish is
- The fraction of the yellow fish is

_____
_____
_____

_____
_____
_____

_____
_____
_____



d

- The fraction of the big boxes is
- The fraction of the small boxes is
- The fraction of the red boxes is

_____
_____
_____

_____
_____
_____

_____
_____
_____

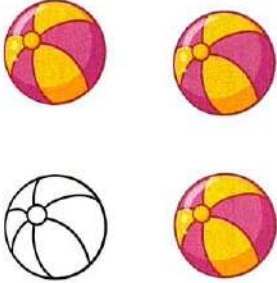


## Parents' Tips:

- Help your child form a fraction of a part of a set.
- Let your child know that the set means a group of objects that have the same size, color, shape or uses.

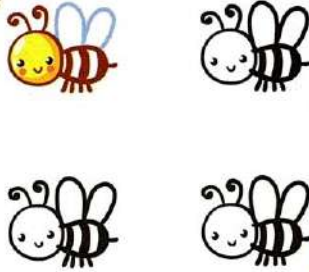
**Activity 2** Write the fraction of colored objects in each set:

a



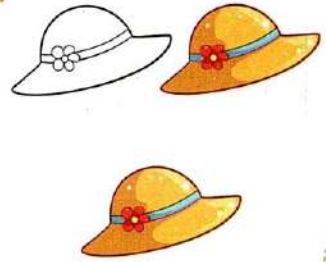
—

b



—

c



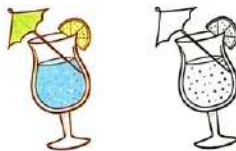
—

d



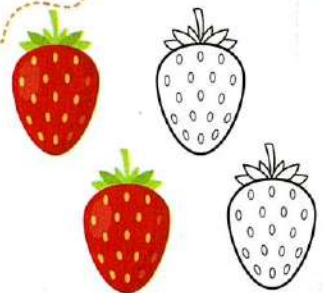
—

e



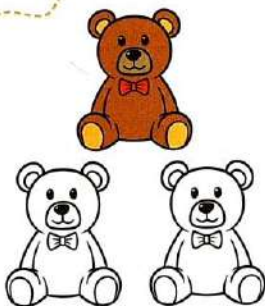
—

f



—

g



—

h



—

i



—



**Parents' Tips:**

- Help your child form a fraction of a part of a set.



## Activity

3

Write the fraction of girls and boys for each picture:

a



Boys

Girls

b



Boys

Girls

c



Boys

Girls

d



Boys

Girls

e



Boys

Girls

f



Boys

Girls

g



Boys

Girls

h



Boys

Girls

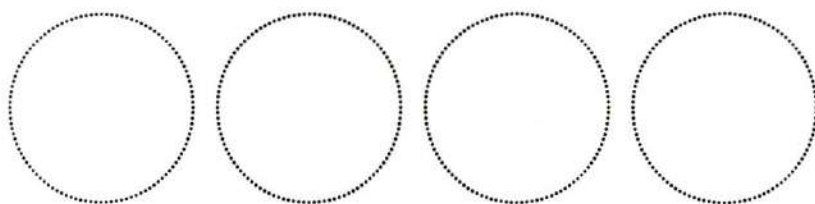
## Parents' Tips:

- Help your child form a fraction of a part of a set.



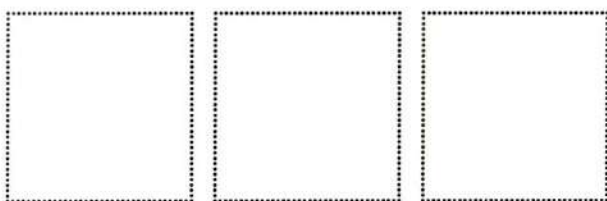
**Activity 4** Color, then write the fractions:

**a** Color 3 circles in red and 1 circle in green:



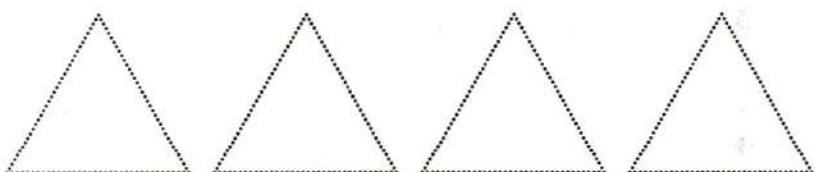
- of circles are red.
- of circles are blue.
- of circles are green.

**b** Color 1 square in purple, 1 square in yellow and 1 square in blue:



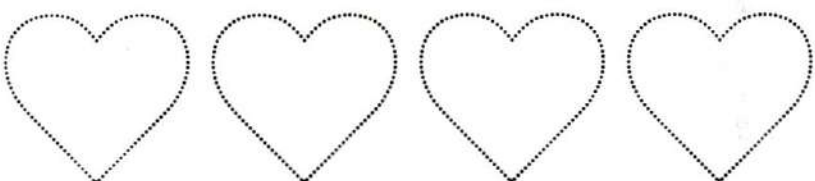
- of squares are purple.
- of squares are yellow.
- of squares are blue.

**c** Color 1 triangle in red, 2 triangles in yellow and 1 triangle in green:



- of triangles are yellow.
- of triangles are red.
- of triangles are green.

**d** Color half of hearts in orange and color 1 heart in green and 1 heart in pink:



- of hearts are orange.
- of hearts are green.
- of hearts are pink.

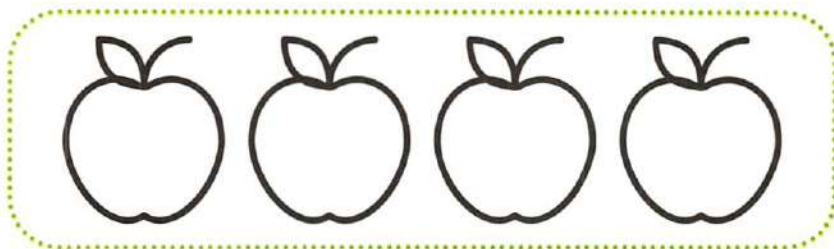
**Parents' Tips:**

- Help your child solve some story problems involving fractions.



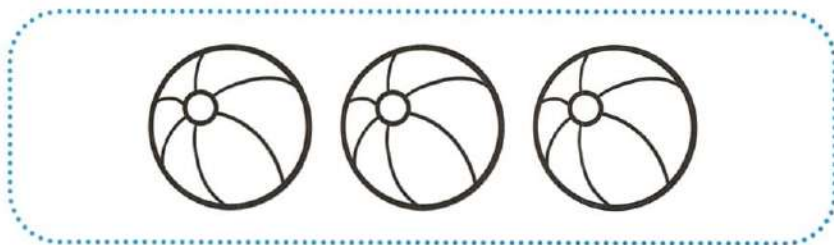
**Activity 5** Color the following objects according to the given fraction:

a



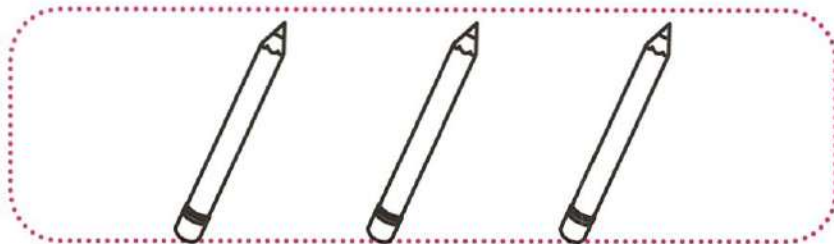
$$\frac{2}{4}$$

b



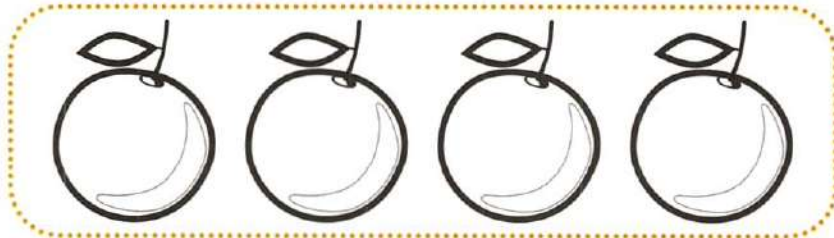
$$\frac{1}{3}$$

c



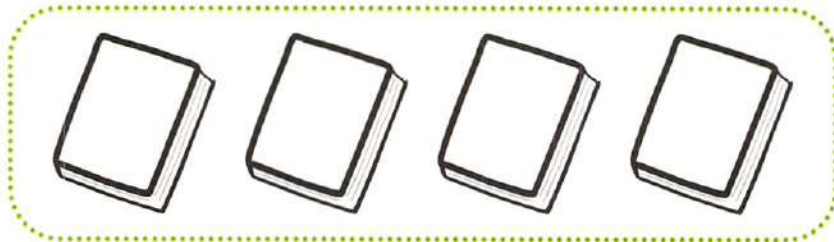
$$\frac{2}{3}$$

d



$$\frac{3}{4}$$

e



$$\frac{1}{2}$$



**I learned**

- How to form a fraction of a set of objects.



# Fraction story problems



There are 4 slices in a pizza.

Dalia ate  $\frac{3}{4}$  of slices.

What is the fraction of the left slices with Dalia?



To solve this story problem collect your data about:



The number of all parts as a denominator.

All slices are 4

The number of left parts as a numerator.

Dalia ate 3 from 4

so, Dalia had

$4 - 3 = 1$  slice.

The fraction that represents the number of slices of pizza left with Dalia is  $\frac{1}{4}$ .



## Daily Practice:

• Invite your child to look at the calendar and ask him/her to draw a red circle around today's date.

**Key words:** Fraction - Numerator - Denominator



## Activity

1

Read, think, then solve:

## Example



It was a hot day and the children wanted a drink. Three children wanted orange juice and one child wanted milk.

What is the fraction of children who wanted milk?

$$\frac{1}{4}$$

a

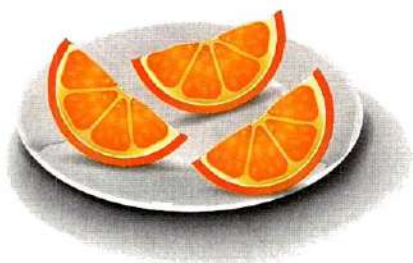


The classroom needs 4 more pencils. Amr brought 1, and Ahmed brought 1.

What is the fraction of pencils didn't the children bring?

$$\frac{\quad}{\quad}$$

b



If there are 3 orange slices on a plate and Wael ate 2 of them.

What is the fraction of left slices?

$$\frac{\quad}{\quad}$$

c



Sara has four toy cars. She gave her sister  $\frac{1}{4}$  of them.

What is the fraction of left cars?

$$\frac{\quad}{\quad}$$

## Parents' Tips:

- Encourage your child to solve some story problems involving fractions.

**Activity 2** Read, think, then solve:

a



Salma cut an apple into four equal pieces. She gave two pieces to her sister and one piece to her brother.

**What's the fraction of the left pieces?**

.....  
——  
.....

b



If Ahmed has 2 sons and one daughter.

**What's the fraction of his sons?**

.....  
——  
.....

c

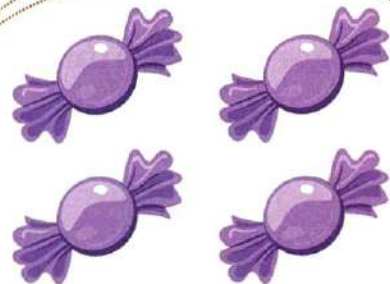


Rana made 2 cupcakes, she gave her sister one of them.

**What's the fraction of the left cupcakes?**

.....  
——  
.....

d



Adam had 4 sweets, he gave his sister 3 of them,

**What's the fraction of the left sweets?**

.....  
——  
.....



**I learned**

- How to solve story problems involving fractions.





# Summary



Identify the equal parts and unequal parts.

Solve story problems involving fractions.

Divide shapes into equal parts.

Identify and write fractional parts of a set.

## Form a fraction

Numerator  $\rightarrow$  3  
Fraction bar  $\rightarrow$   $\frac{\quad}{\quad}$   
Denominator  $\rightarrow$  4

Know the relation between the whole one and the fractions:

- Half
  - Third
  - quarter or fourth
- and the relation between fractions and each other.

Read and write the fractions with 1 as a numerator like:

- Half
- Third
- Fourth
- Quarter

Read and write the fractions with a numerator more than 1 like:

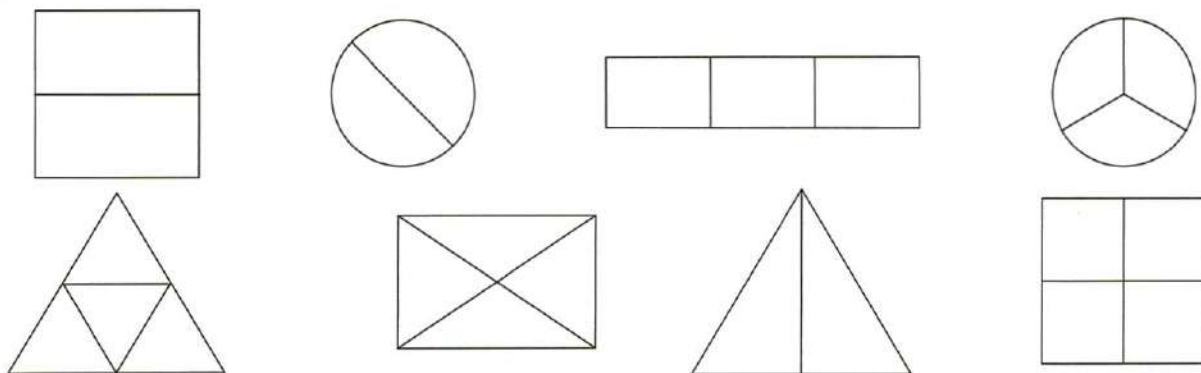
- $\frac{2}{4}$  two fourths or two quarters
- $\frac{3}{4}$  three fourths or three quarters
- $\frac{2}{3}$  two thirds



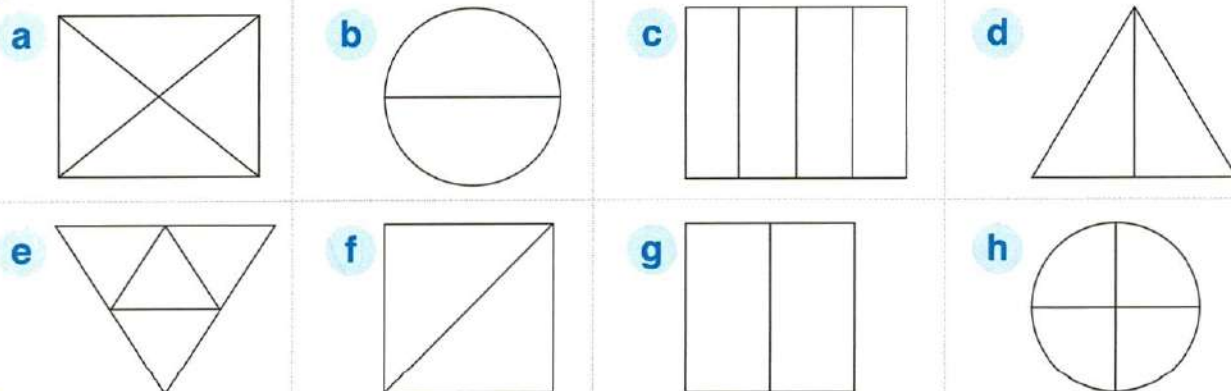
# General Activities

## On Chapter 5

1 Color the shapes that show fourths in blue, thirds in red, and halves in yellow.



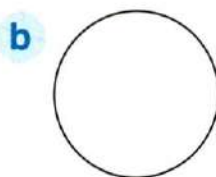
2 Color half of each of the following shapes:



3 Divide each shape, then color it according to the given fraction.



$$\frac{1}{3}$$



$$\frac{3}{4}$$



$$\frac{1}{2}$$

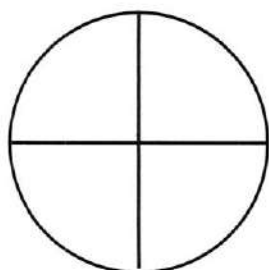


$$\frac{2}{3}$$



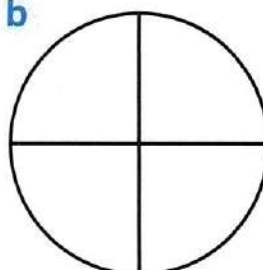
**4** Color according to the given fraction:

**a**



One fourth

**b**



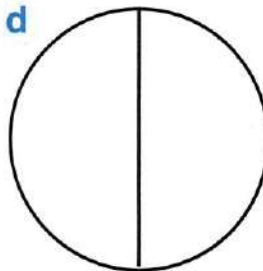
One whole

**c**



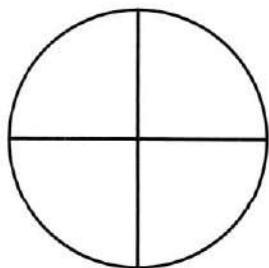
$\frac{1}{3}$

**d**



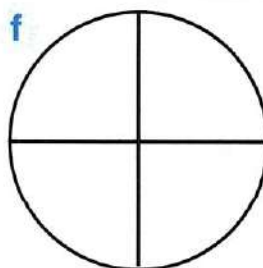
Two halves

**e**



$\frac{2}{4}$

**f**



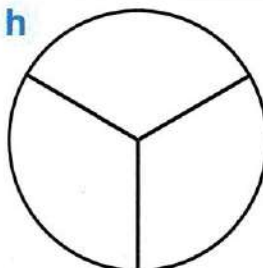
$\frac{3}{4}$

**g**



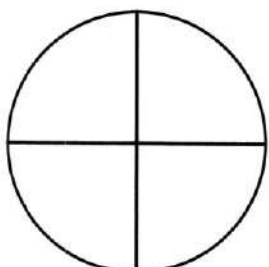
$\frac{2}{3}$

**h**



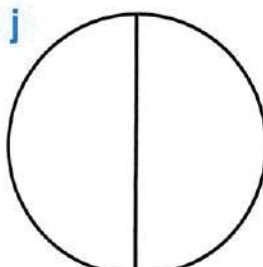
$\frac{3}{3}$

**i**



Four quarters

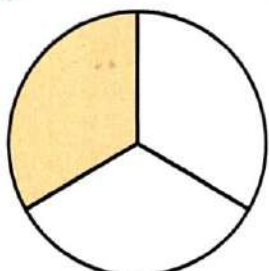
**j**



$\frac{1}{2}$

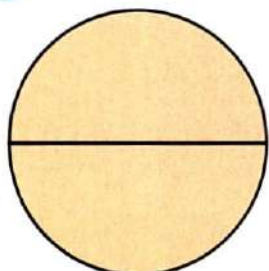
**5** Write the fraction which represents the shaded part(s):

a



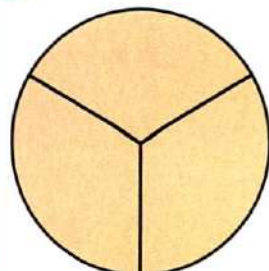
—

b



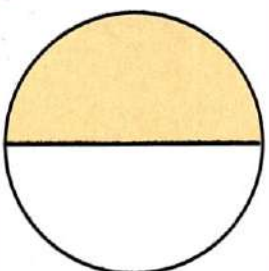
—

c



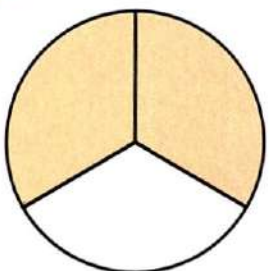
—

d



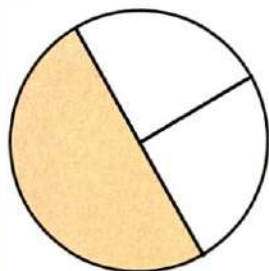
—

e



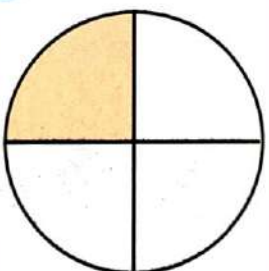
—

f



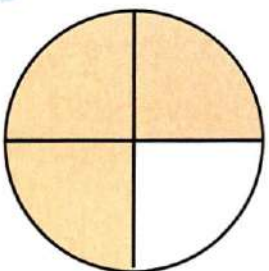
—

g



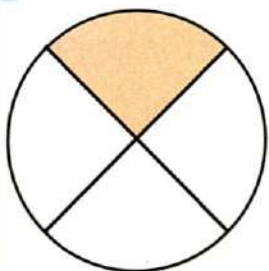
—

h



—

i

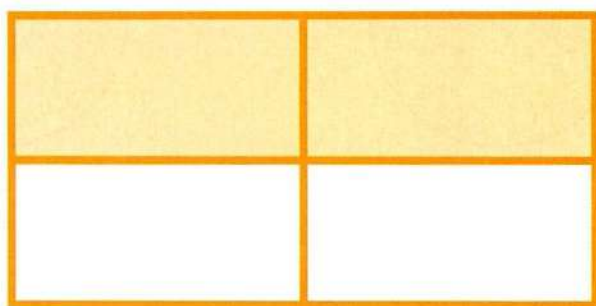


—



**6** Solve the following fractions word problems:

- a** A figure is divided into 4 equal parts. Ali shaded 2 parts of it. What fraction of the figure is not shaded?



- b** There are 4 flowers in the basket. 3 flowers are red and 1 flower is yellow. What fraction of flowers is yellow?

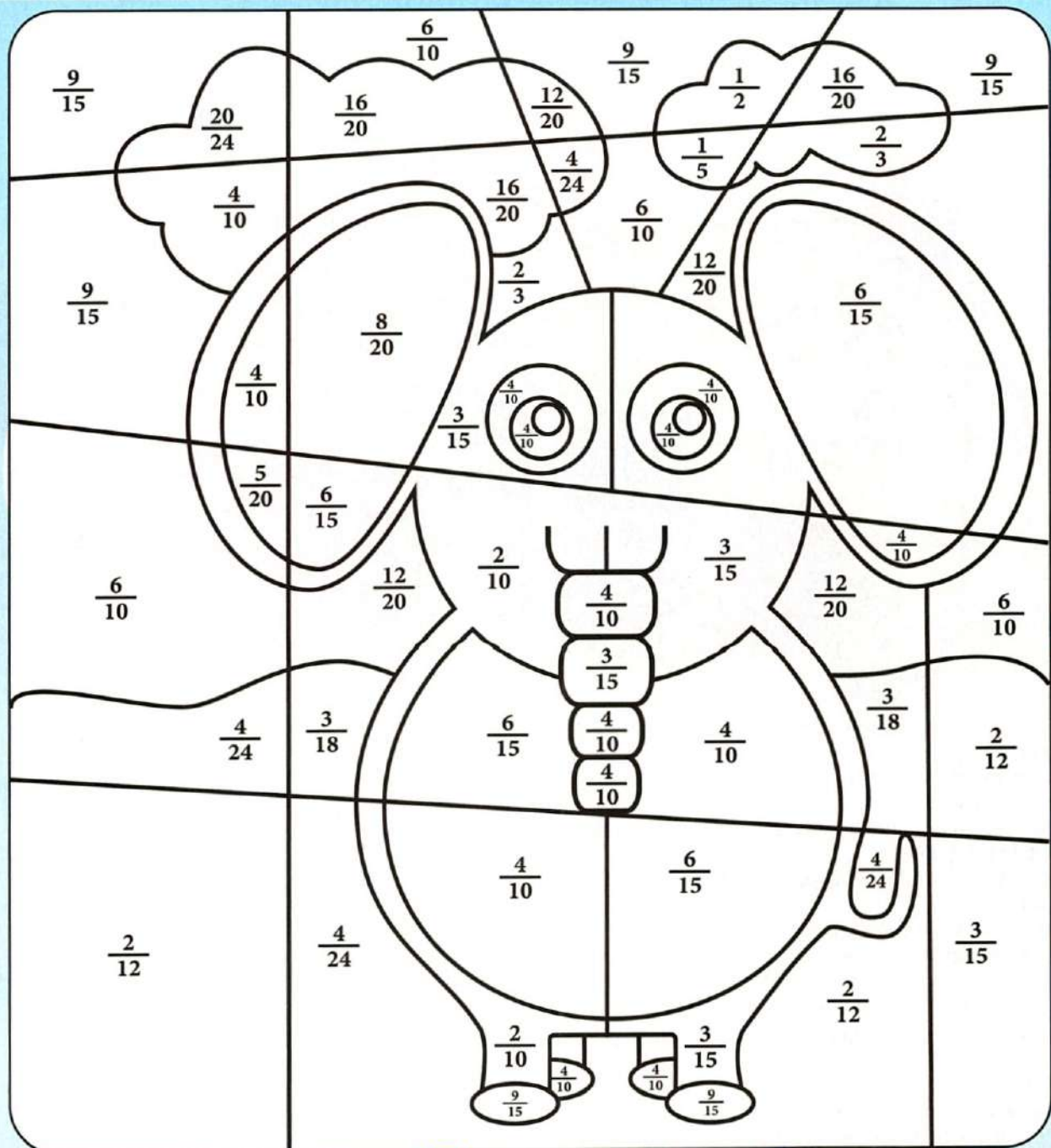


- c** Mom gave me 3 cupcakes to eat. I gave 2 cupcakes to my younger brother. What fraction of cupcakes do I have now?





- Color the fraction which has an even denominator in **red** and the fraction which has an odd denominator in **blue**.





# Chapter

# 6



## Pacing Guide

### Lessons (111&112): Bar graph and pictograph

#### Outcomes

- Represent data in bar graph with a scale of (2) or (5) or (10).
- Represent data in pictographs with a scale of (2) or (5) or (10).
- Explain the importance of using appropriate scale when creating bar graphs.

### Lesson (113): Forming a bar graph and a pictograph

#### Outcomes

- Form a bar graph and a pictograph.
- Choose an appropriate scale based on the data being graphed.
- Organize data on a bar graph and solve problems using these data.
- Organize data on a pictograph and solve problems using these data.

### Lessons (114&115): Comparing between two arrays

#### Outcomes

- Identify real - world arrays.
- Write repeated addition sentences for arrays.
- Calculate the total number of objects in an array.
- Create arrays with given rows & columns.
- Write repeated addition sentences to express the total number of objects in an array.
- Compare between two arrays.

### Lesson (116): Adding using mental math strategies

#### Outcomes

- Apply variety of strategies to add 1, 2 and 3-digit numbers.

### Lesson (117): Addition story problems

#### Outcomes

- Write story problems for addition.
- Solve addition story problems.

### Lesson (118): Subtracting using mental math strategies

#### Outcomes

- Apply variety of strategies to subtract 1, 2, 3-digit numbers.

### Lesson (119): Subtraction story problems

#### Outcomes

- Write story problem for subtraction.
- Solve subtraction story problems.

### Lesson (120): Math games using addition and subtraction strategies

#### Outcomes

- Play a math game for solving addition & subtraction problems.
- Reflect on their learning in primary 2 mathematics.
- Describe major skills and concepts learned in primary 2.







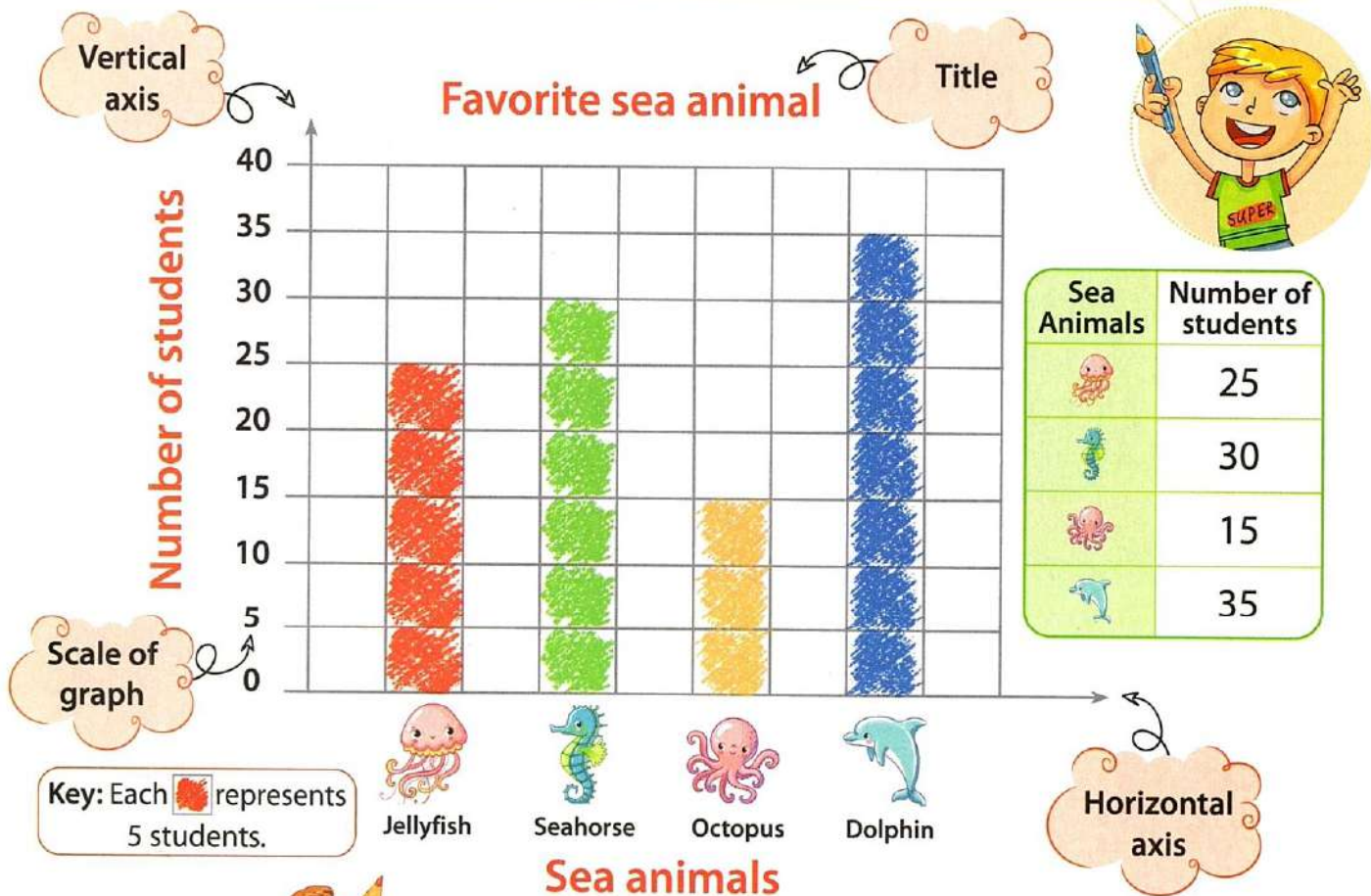
In this chapter,  
we are going to review  
what we have studied during  
this term.





# Bar graph and pictograph

- Yesterday, I went with my class on a trip. We went to one of the world's largest indoor aquariums, we have seen a lot of sea animals during our trip and we found that: 25 students liked , 30 students liked , 15 students liked  and 35 students liked .
- Today, our teacher asked us to represent these data in a bar graph.
- We can use any scale for the bar graph, so we choose a scale of 5 to represent these data.



**Notice that**

The bar graph and the pictograph are used to collect data.



is liked the best  
by 35 students.



is liked the least  
by 15 students.

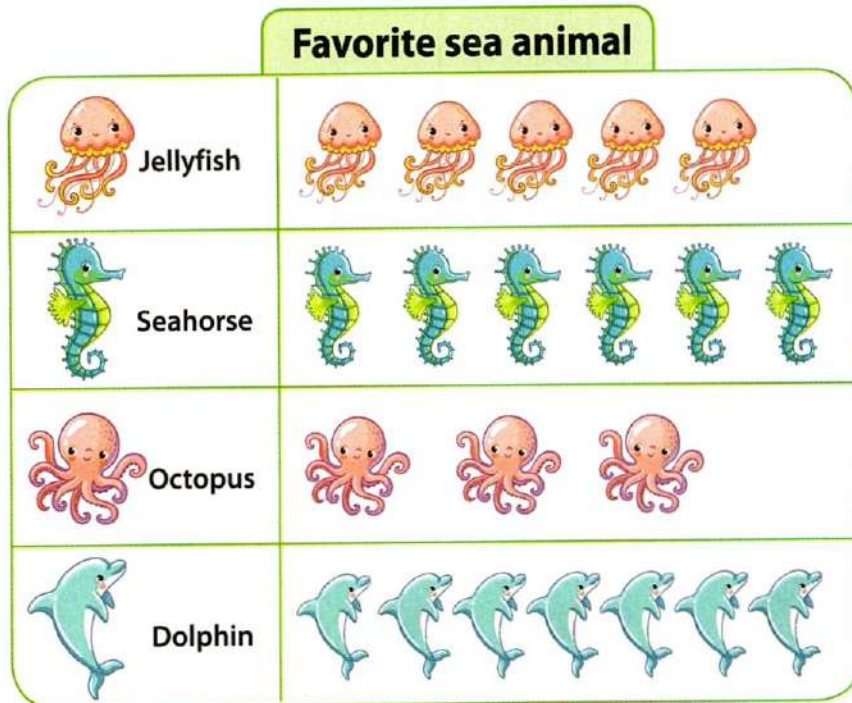
## Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around today's date.
- Ask your child to write the name of the current day and the name of the day before and the day after.

**Key words:** Bar graph - Horizontal - Vertical - Title - Scale of 5 - Best - Least



- We can also use a pictograph to represent our data about our favorite sea animals (Pictograph uses pictures to represent the data):



Key: Each sea animal represents 5 students.

- How many students liked  ?

30

- How many students liked  and  ?

$$\boxed{15} + \boxed{30}$$

45

- How many **more** students liked  than  ?

$$\boxed{35} - \boxed{15}$$

20

- How many students liked ,  and  ?

$$\boxed{25} + \boxed{30} + \boxed{15}$$

70

- What is the **most** popular sea animal on this graph?

Dolphin

**Parents' Tips:**

- Help your child collect data from pictograph.

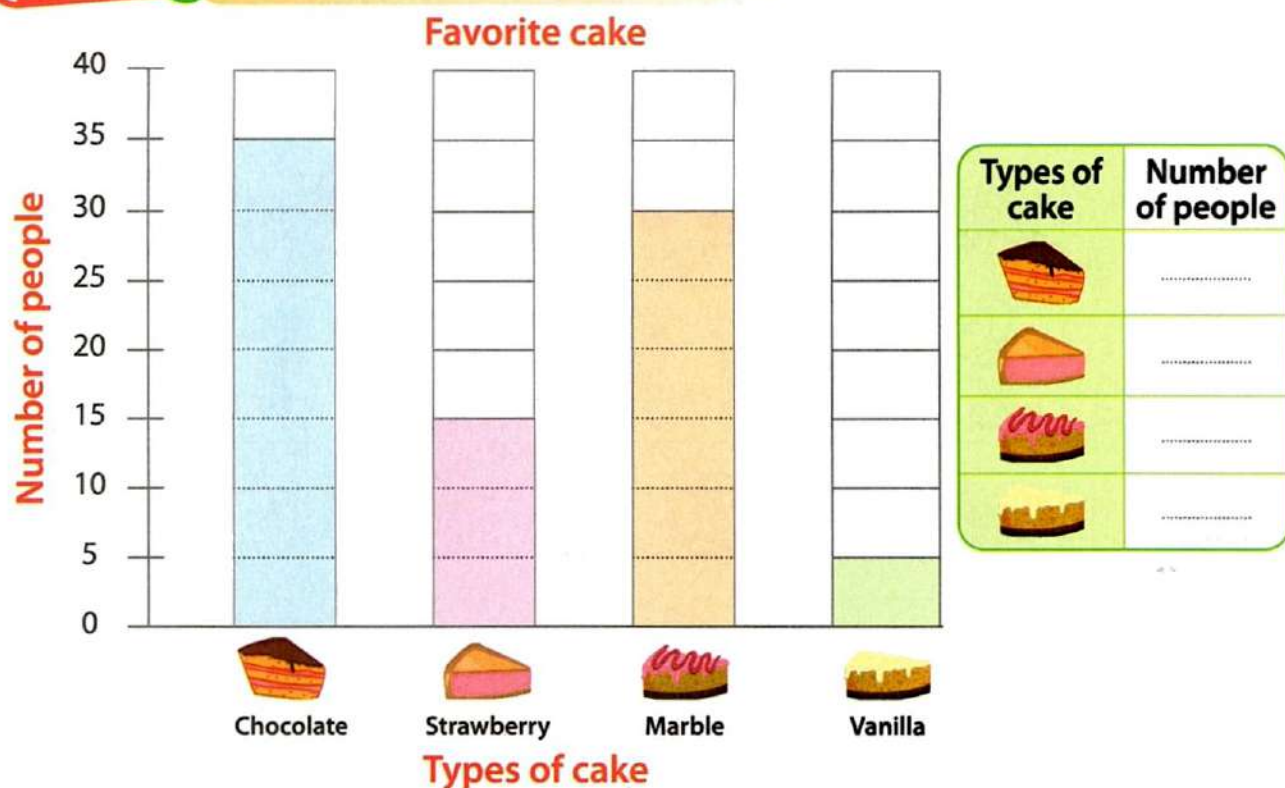
**Key words:** Key - Pictograph.



## Activity

1

Complete the table, then answer the question:



- a How many people liked ? .....
- b How many **more** people liked than ? .....  
 -
- c How many people liked and ? .....  
 +
- d How many **more** people liked than ? .....  
 -
- e What is the **least** favorite cake? .....
- f What is the **most** favorite cake? .....
- g This bar graph represented by scale of .....

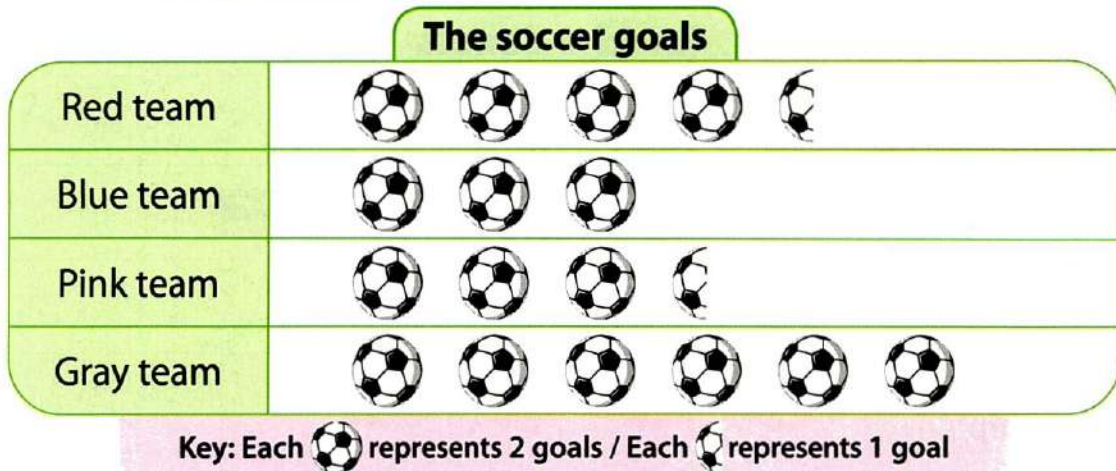
**Parents' Tips:**

- Help your child solve questions on bar graphs.

**Activity**

**2**

Use the data in the following pictograph and color to complete the bar graph of the soccer goals:



**Notice that**

As we use scale of 2 and the red team scored 9 goals, so 9 would be half way between 8 and 10.

**a** Which team has the **most** soccer goals?

**b** How many goals did the pink team **and** blue team score?

+

**c** How many **more** goals did the gray team score **than** the blue team?

-

**d** Which team has the **least** number of soccer goals?

**Parents' Tips:**

- Help your child use a pictograph to form a bar graph.

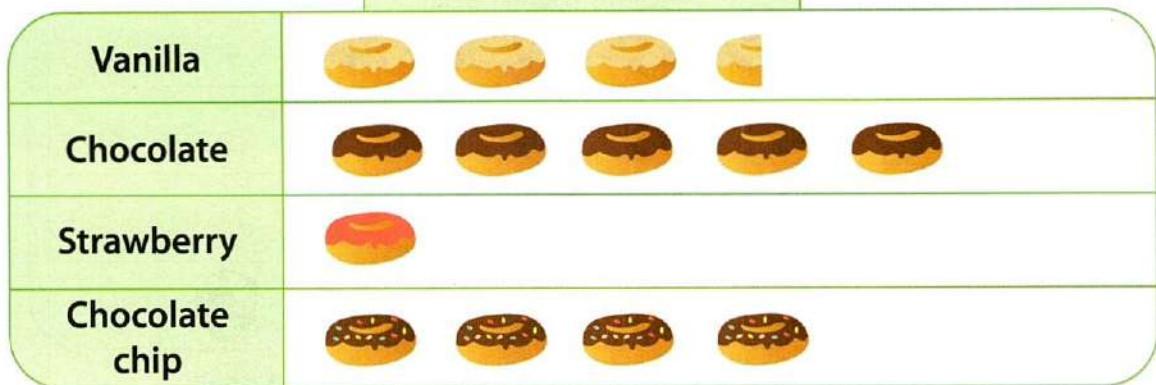




## Activity

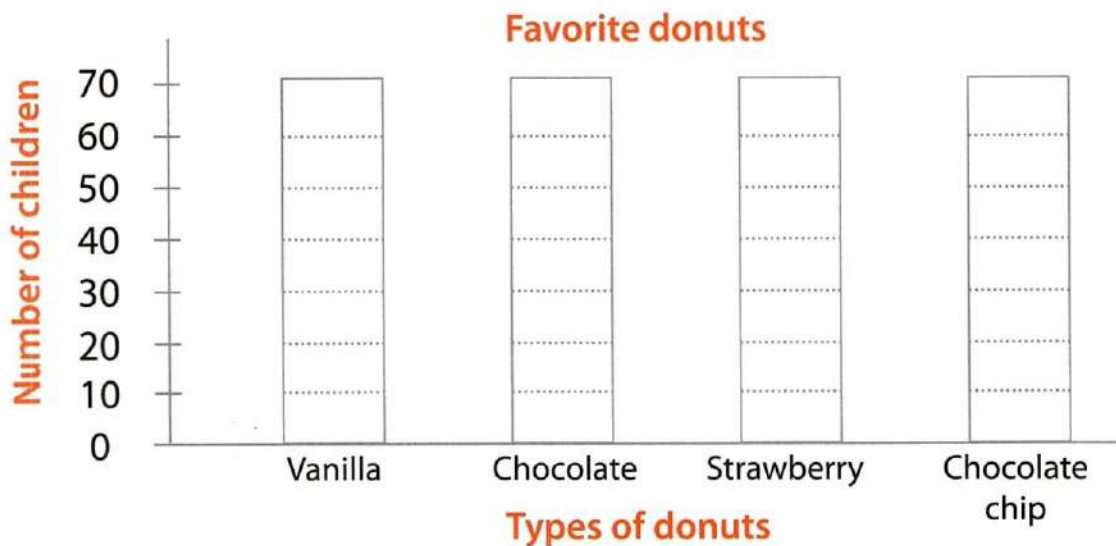
3

Use the data in the pictograph to represent it by the bar graph, then answer the questions:

Favorite donuts



Key: Each  represents 10 children / each  represents 5 children.



- a** How many students like chocolate donuts?
- b** How many students like vanilla and strawberry donuts?  +
- c** How many more students like chocolate chip donuts than vanilla?  -

## Parents' Tips:

- Encourage your child to use a pictograph to form a bar graph.

**Activity 4**

Sara's father has a food shop, he asked Sara to collect information about how many hot dog sandwiches sold during the week. Help Sara represent these data on a pictograph, then answer the questions.



**Hot dog sandwiches sold**

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

**Key:**

- How many hot dogs sandwiches were sold on Wednesday?
- Which day has the **most** number of sold hot dog sandwiches?
- Which day has the **least** number of sold hot dog sandwiches?



**I learned**

How to use scale of 5 to represent data on:

- a bar graph.
- a pictograph.





# Forming a bar graph and a pictograph



To form a bar graph, follow the steps:

- ① Draw horizontal and vertical axes.
- ② Choose the suitable scale (1, 2, 5 or 10).
- ③ Write a title.
- ④ Label each axis.
- ⑤ Color each bar according to its data.

• Let's form a bar graph for our art teacher to record data about the number of students who drew magical fairies with different colors:



Blue fairy  
8 students



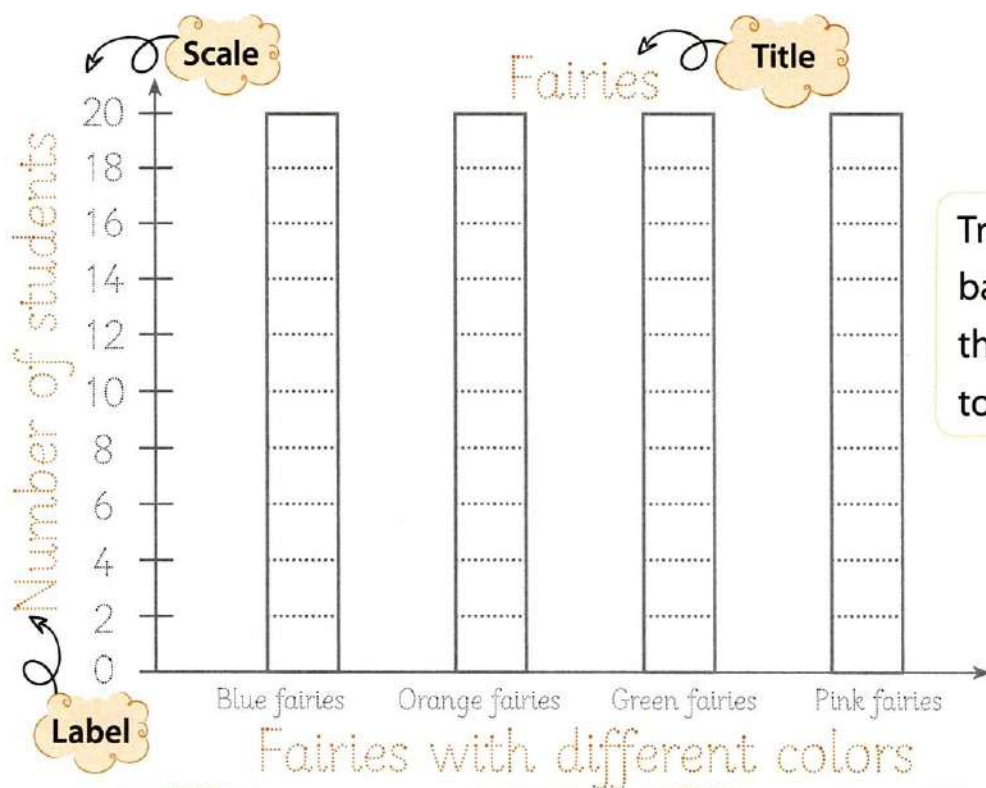
Orange fairy  
10 students



Green fairy  
15 students



Pink fairy  
20 students



Trace with me the bar graph and color the bars according to the given data.



## Daily Practice:

• Invite your child to use his/her calendar to draw a circle around today's date.

**Key words:** Horizontal - Vertical - Axis - Axes - Scale - Label - Title - Data

To form a pictograph, follow the steps:

- ① Write a title.
- ② Choose a suitable key.
- ③ Use the key to represent the data by drawing.

Trace in the pictograph with me.



**Blue fairy**  
**8** students



**Orange fairy**  
**10** students







**Green fairy**  
**15** students



**Pink fairy**  
**20** students

Magical fairies

Title

	<b>Blue fairy</b>	☆☆☆☆
	<b>Orange fairy</b>	☆☆☆☆☆
	<b>Green fairy</b>	☆☆☆☆☆☆☆
	<b>Pink fairy</b>	☆☆☆☆☆☆☆☆

**Key:** Each ☆ represents 2 students / each ☆ represents 1 student

**Parents' Tips:**

- Help your child form a pictograph from the given data.



## Activity 1

Draw a bar graph to record the data which Ahmed collected about the favorite pet for each of his friends in school, then answer:



Notice that

Steps:

① Write title

③ Make a scale

② Label the axes

④ Graph the data



Cat

20 friends



Dog

40 friends



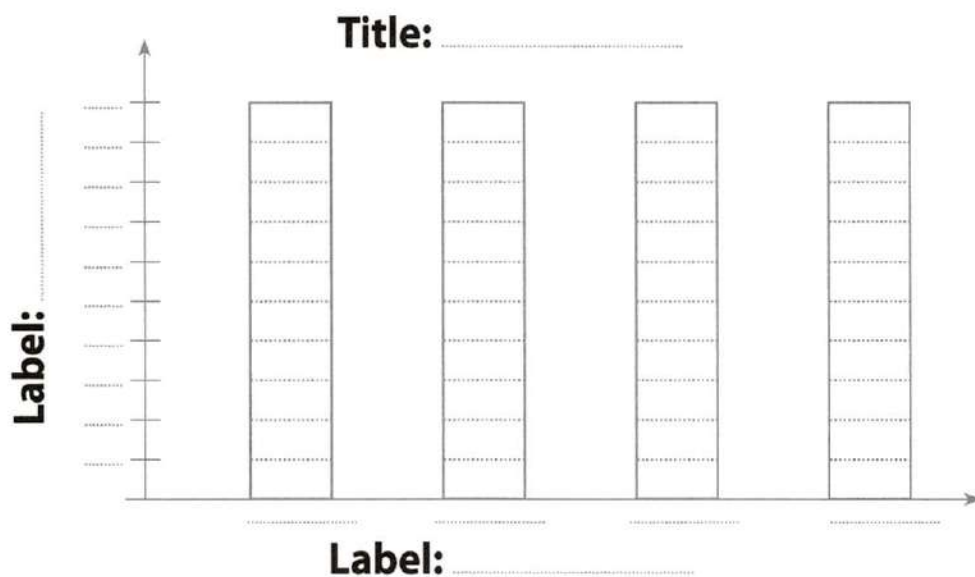
Fish

10 friends



Hamster

50 friends



- a Which pet was **the most** favorite?
- b Which pet was **the least** favorite?
- c How many friends liked fish **and** cat?

\_\_\_\_\_ + \_\_\_\_\_

## Parents' Tips:

- Help your child form a bar graph from the given data.

Activity

2

Form a pictograph to record the data about the gifts that Sara and her family had collected for Christmas:



Notice that

Steps: • Write title • Make a key to show the scale



Sara

4 gifts



Her brother

8 gifts



Her mother

12 gifts




Her father

14 gifts

Title

 Sara	
 Her brother	
 Her mother	
 Her father	

Key: Each  represents ..... gifts.

a How many **more** gifts did Sara's brother has **than** her?

-

b Who has **the most** number of gifts?

c Who has **the least** number of gifts?

d How many gifts did Sara, her brother and her father have?

+  +

Parents' Tips:

• Encourage your child to form a pictograph from a given data.



## Activity

3

Read, think, then solve:

- Karim's uncle has a bakery shop he asked him to collect the data about the cupcakes he sold during this week, and represent these data on both a bar graph and a pictograph:



10

Thursday cupcakes



25

Friday cupcakes



35

Saturday cupcakes

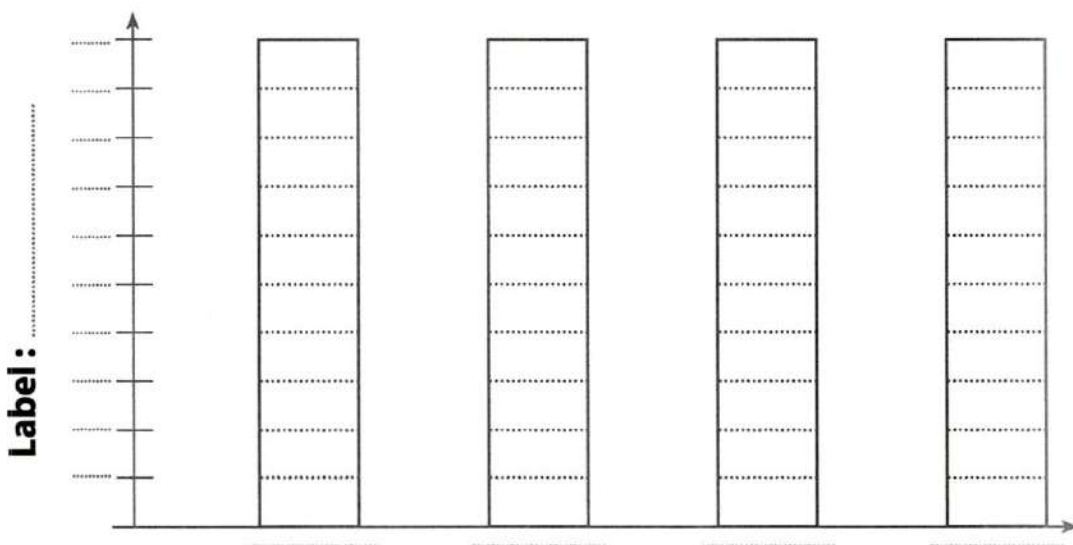


15

Sunday cupcakes

As a bar graph:

Title: \_\_\_\_\_



As a pictograph:

Title \_\_\_\_\_

Thursday	
Friday	
Saturday	
Sunday	

Key: \_\_\_\_\_

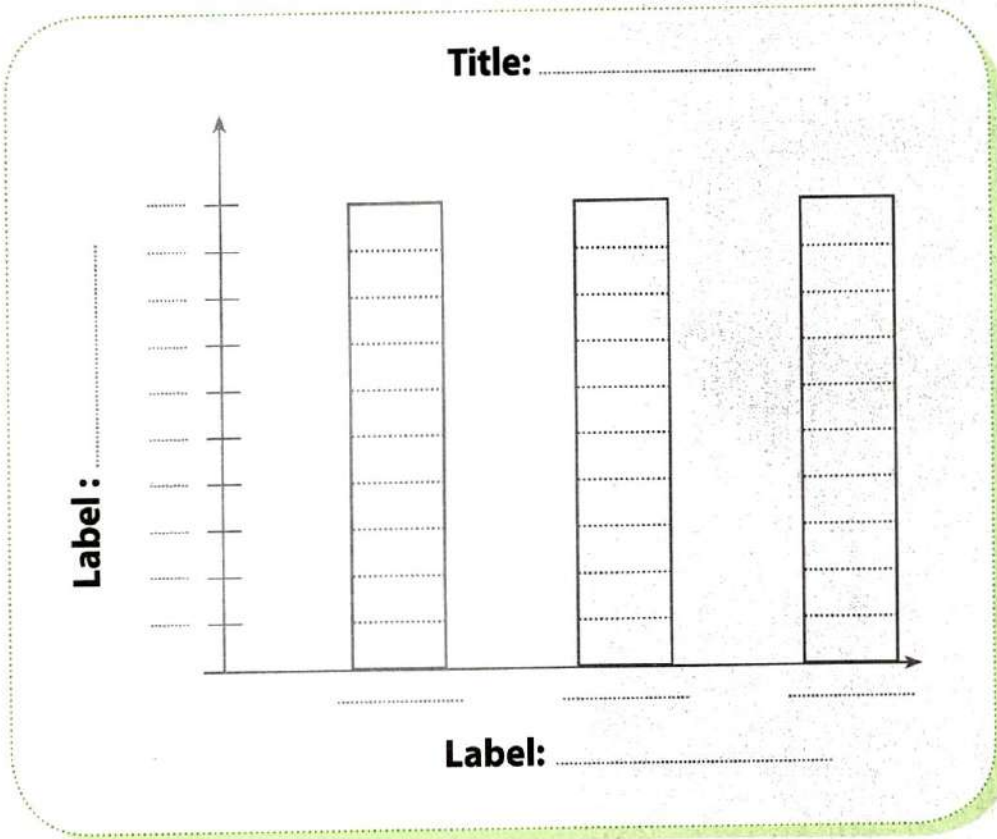
## Parents' Tips:

- Ensure that your child can form both a bar graph and a pictograph from the given data.

Activity

4

Our art teacher asked my friends and me to create a bar graph and a pictograph about our favorite color:



Blue



8 students

Green



7 students

Red



6 students

As a pictograph:

**Title** .....

Red	
Blue	
Green	

**Key:** .....

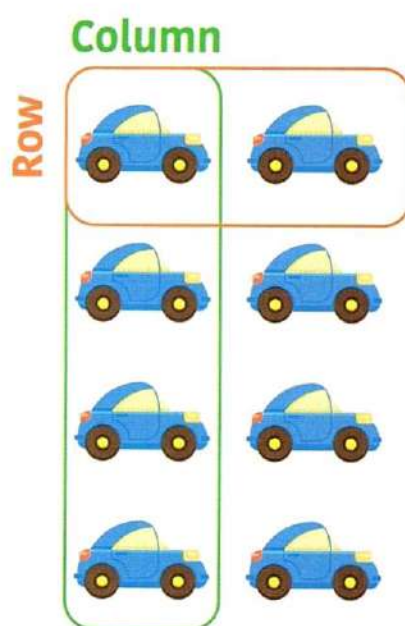
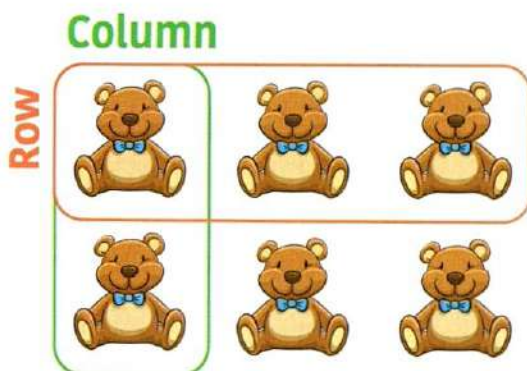


I learned

- How to form a bar graph and a pictograph.







Or

**Rows** **Columns**

Array is **2** by **3**.

Addition sentences:

- Add the 2 rows:  
 $3 + 3 = 6$
- Add the 3 columns:  
 $2 + 2 + 2 = 6$

Array is **4** by **2**.

Addition sentences:

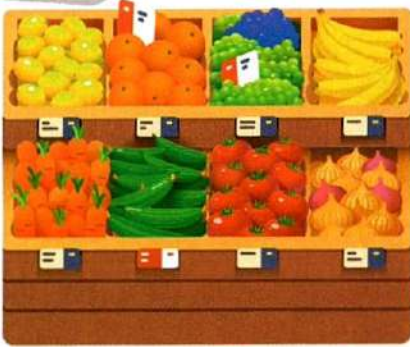
- Add the 4 rows:  
 $2 + 2 + 2 + 2 = 8$
- Add the 2 columns:  
 $4 + 4 = 8$



- The array has a greater sum than the array.
- The array has a smaller sum than the array.

**Activity 1** Complete, then color the correct answer:

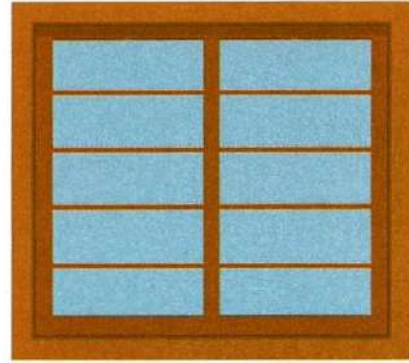
**Example**



Array is called **2** by **4**

Addition sentences:



- $4 + 4 = 8$
- $2 + 2 + 2 + 2 = 8$



Array is \_\_\_\_\_ by \_\_\_\_\_

Addition sentences:

- \_\_\_\_\_
- \_\_\_\_\_

The number of objects  of the first array is \_\_\_\_\_ than the number of the objects  of the second array. ( greater or smaller )



Array is \_\_\_\_\_ by \_\_\_\_\_

Addition sentences:



- \_\_\_\_\_
- \_\_\_\_\_



Array is \_\_\_\_\_ by \_\_\_\_\_

Addition sentences:

- \_\_\_\_\_
- \_\_\_\_\_

The number of objects  of the first array is \_\_\_\_\_ than the number of objects  of the second array. ( greater or smaller )

**Parents' Tips:**

- Help your child practice comparing between 2 arrays.



## Activity

2

Complete, then color the repeated addition sentence that represents the sum of each array:

## Example



Array is 4 by 4

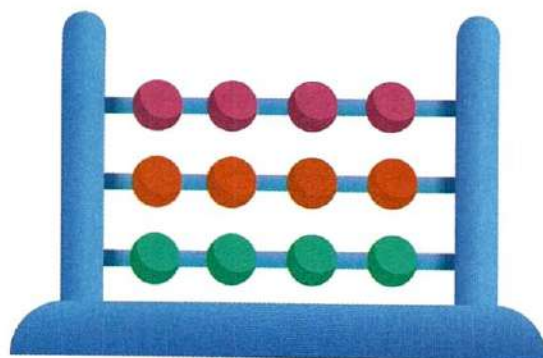
$5 + 4 = 9$

☐

$5 + 5 + 5 + 5 = 20$

☐

$4 + 4 + 4 + 4 = 16$

☒


Array is ..... by .....

$4 + 4 + 4 = 12$

☐

$3 + 3 + 3 = 9$

☐

$4 + 3 = 7$

☐


Array is ..... by .....

$3 + 3 + 3 + 3 = 12$

☐

$5 + 3 = 8$

☐

$3 + 3 + 3 + 3 + 3 = 15$

☐


Array is ..... by .....

$5 + 2 = 7$

☐

$5 + 5 = 10$

☐

$2 + 5 = 7$

☐

## Parents' Tips:

• Encourage your child to form the repeated addition equations for different arrays.

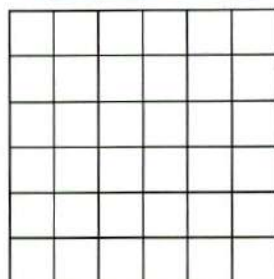
**Key words:** Repeated - Addition



**Activity 3** Color to form the array, then join:

**a**

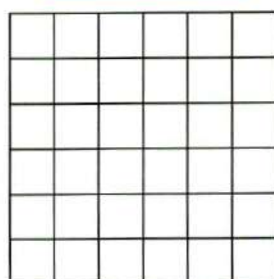
**6 by 3**



$$\begin{aligned} &= 3 + 3 + 3 + 3 + 3 \\ &= 5 + 5 + 5 \\ &= 15 \end{aligned}$$

**b**

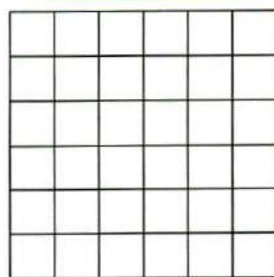
**3 by 2**



$$\begin{aligned} &= 3 + 3 + 3 + 3 + 3 + 3 \\ &= 6 + 6 + 6 \\ &= 18 \end{aligned}$$

**c**

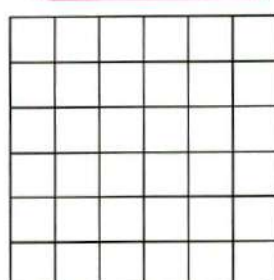
**3 by 5**



$$\begin{aligned} &= 4 + 4 + 4 + 4 + 4 \\ &= 5 + 5 + 5 + 5 \\ &= 20 \end{aligned}$$

**d**

**4 by 5**



$$\begin{aligned} &= 3 + 3 \\ &= 2 + 2 + 2 \\ &= 6 \end{aligned}$$





## Activity

4

Compare the number of objects of arrays by coloring the correct sign:



4

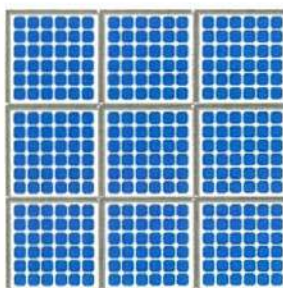
by

.....

&gt;

&lt;

=



by

3



.....

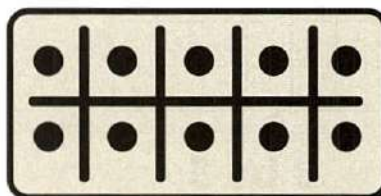
by

5

&gt;

&lt;

=



2

by

.....



## I learned

- How to draw an array.
- How to read and write the name of an array as 2 rows by 3 columns.
- How to compare between two arrays.



2 by 3

Rows

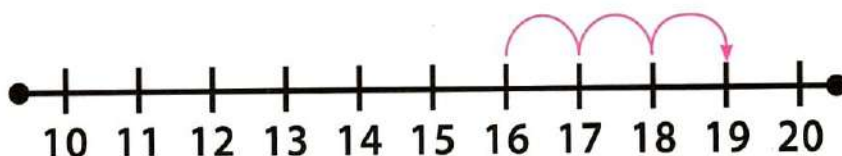
Columns



# Adding using mental math strategies

In this lesson we are going to solve addition problems using different ways

On number line  
count forward  
 $16 + 3 = 19$



Fact family

$$16 + 3 = 19$$

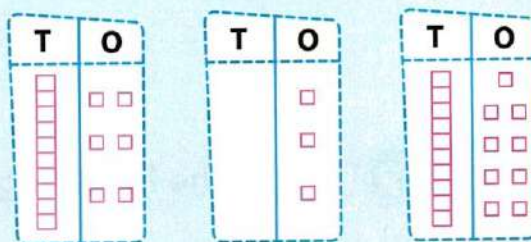
$$3 + 16 = 19$$

$$19 - 16 = 3$$

$$19 - 3 = 16$$

On place value mat

$$16 + 3 = 19$$



Decomposing into  
tens & ones

$$16 + 3$$

$$\begin{array}{cc} 10 & 6 \\ \swarrow & \searrow \\ 10 & 6 \end{array} \quad \begin{array}{cc} 0 & 3 \\ \swarrow & \searrow \\ 0 & 3 \end{array}$$

$$6 + 3 = 9$$

$$10 + 9 = 19$$

on the 120 chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Count forward

$$16 + 3 = 19$$

## Daily Practice:

- Encourage your child to look at the calendar and ask him to draw a circle around the total days he/she spent in school on the 120 chart.
- Ask your child to write the name of today and the name of the day before and the day after.

**Key words:** Count forward - Decomposing - Tens - Ones - Fact family - Place value - Number line - 120 chart



## Activity 1

Solve the following problems using 100 chart:

a

$$\begin{array}{r} 38 \\ + 20 \\ \hline \end{array}$$

b

$$\begin{array}{r} 52 \\ + 14 \\ \hline \end{array}$$

c

$$\begin{array}{r} 42 \\ + 17 \\ \hline \end{array}$$

d

$$\begin{array}{r} 19 \\ + 40 \\ \hline \end{array}$$

e

$$\begin{array}{r} 96 \\ + 11 \\ \hline \end{array}$$

f

$$\begin{array}{r} 66 \\ + 10 \\ \hline \end{array}$$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

## Activity 2

Solve the following problems using the place value mat:

## Example



$$\begin{array}{r} 68 \\ + 25 \\ \hline 93 \end{array}$$

Tens	Ones

a



$$\begin{array}{r} 134 \\ + 137 \\ \hline \end{array}$$

Hundreds	Tens	Ones

b



$$\begin{array}{r} 25 \\ + 18 \\ \hline \end{array}$$

Tens	Ones

c



$$\begin{array}{r} 274 \\ + 82 \\ \hline \end{array}$$

Hundreds	Tens	Ones

## Parents' Tips:

- Help your child solve addition problems using different strategies.

**Activity 3** Solve following problems:

**Example**

$$\begin{array}{r} \textcircled{1} \\ 281 \\ + 143 \\ \hline 424 \end{array}$$

a

$$\begin{array}{r} 562 \\ + 134 \\ \hline \end{array}$$

b

$$\begin{array}{r} 321 \\ + 179 \\ \hline \end{array}$$

c

$$\begin{array}{r} 278 \\ + 19 \\ \hline \end{array}$$

d

$$\begin{array}{r} 506 \\ + 206 \\ \hline \end{array}$$

e

$$\begin{array}{r} 492 \\ + 113 \\ \hline \end{array}$$

f

$$\begin{array}{r} 617 \\ + 75 \\ \hline \end{array}$$

g

$$\begin{array}{r} 28 \\ + 98 \\ \hline \end{array}$$

h

$$\begin{array}{r} 13 \\ + 297 \\ \hline \end{array}$$

i

$$\begin{array}{r} 948 \\ + 12 \\ \hline \end{array}$$

j

$$\begin{array}{r} 53 \\ + 462 \\ \hline \end{array}$$

k

$$\begin{array}{r} 164 \\ + 53 \\ \hline \end{array}$$

l

$$\begin{array}{r} 653 \\ + 84 \\ \hline \end{array}$$

m

$$\begin{array}{r} 121 \\ + 359 \\ \hline \end{array}$$

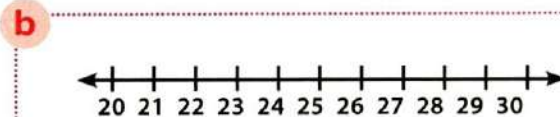
n

$$\begin{array}{r} 509 \\ + 732 \\ \hline \end{array}$$

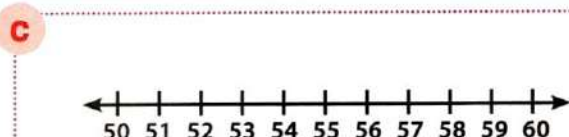
**Activity 4** Use the number line to solve the following problems:



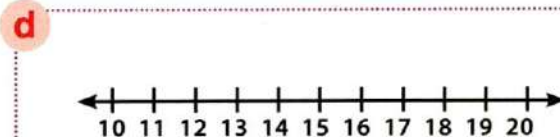
$$12 + 2 = \square$$



$$24 + 4 = \square$$



$$55 + 4 = \square$$



$$17 + 3 = \square$$

**Parents' Tips:**

- Help your child solve addition problems.



5

**Solve the following problems by decomposing:**

286	200	80	6	
→	+	+	+	
+				
22	0	20	2	
→	+	+	+	
	200	100	8	308
	+	+	+	-

28	→	00000000	+	00000000	
61	→	00000010	+	00000000	
		00000010	+	00000000	= 00000010

134  
+  
257

100 + 30 + 4  
200 + 50 + 7

300 + 80 + 1 = 381

Diagram illustrating the addition of 53 and 26 using place value:

- 53 is split into 50 and 3.
- 26 is split into 20 and 6.
- 50 + 20 = 70
- 3 + 6 = 9
- 70 + 9 = 79

Diagram illustrating the addition of 64 and 33 using a tree structure:

- 64 is split into 60 and 4.
- 33 is split into 30 and 3.
- 60 and 30 are added to get 90.
- 4 and 3 are added to get 7.
- 90 and 7 are added to get 97.

## 6

**Solve the following problems using fact family numbers:**

5 8 13

$$5 + 8 = 13$$

$$8 + 5 = 13$$

$$13 - 8 = 5$$

13      5      8

3 9 6

..... + ..... = .....

\*\*\*\*\* + \*\*\*\*\* = \*\*\*\*\*

0000000000 - 0000000000 = 0000000000

\*\*\*\*\* - \*\*\*\*\* = \*\*\*\*\*

2 12 10

\*\*\*\*\* + \*\*\*\*\* = \*\*\*\*\*

\*\*\*\*\* + \*\*\*\*\* = \*\*\*\*\*

\*\*\*\*\* - \*\*\*\*\* = \*\*\*\*\*

\*\*\*\*\* - \*\*\*\*\* = \*\*\*\*\*



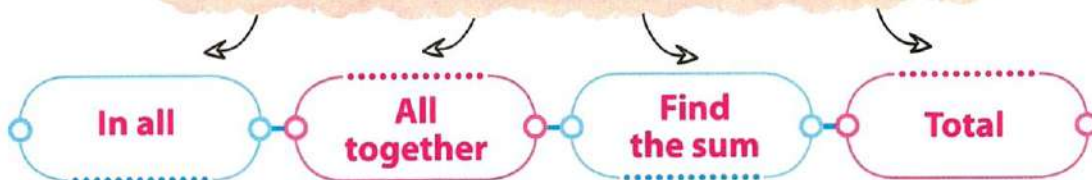
## I learned

- How to solve addition problems using different strategies.



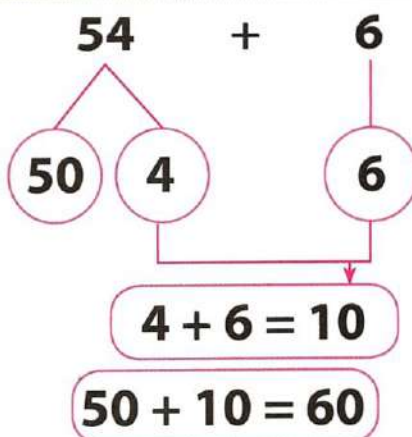
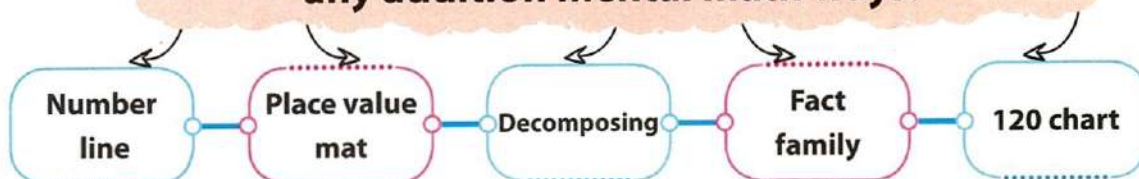
# Addition story problems

We can solve addition story problems when we see these words:



Mariam made 54 vanilla cupcakes **and** 6 chocolate cupcakes,  
Find the sum of cupcakes she made.  
 **$54 + 6 = 60$  cupcakes**

To solve the previous problem, you can use any addition mental math ways:



## Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around the date of today and color the date of yesterday in blue.

**Key words:** Total - Sum - All together



**Activity 1 Read, think and solve:**

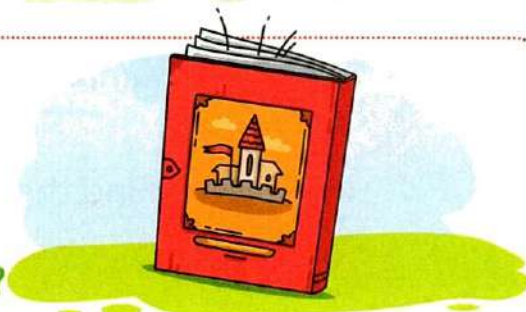
- a** Ahmed went on a picnic, he collected 29 red apples and 19 green apples in the picnic bag. **How many apples did he collect in all?**



The total number of apples = ..... apples.

- b** A story is split into 2 chapters. Chapter one has 94 pages and chapter two has 116 pages.

**How many pages are there in the story?**



The number of pages in the story = ..... pages.

- c** There are 16 girls and 35 boys in a class. **How many students are there in this class?**



The number of students in the class = ..... students.

- d** If Rania had 77 toys while Aya had 12 toys, **how many toys do they have in all?**



The number of toys = ..... toys.

**Parents' Tips:**

- Help your child solve addition story problems.



**Activity 2** Complete the story problem using the given words, then answer:

- a** How many in all 37 cakes

Yassin's mother made ..... for her son birthday party and his aunt made 25 cakes also.

**cakes are there ?**

The total number of cakes = ..... cakes.



- b** plate How many 39 apples

There are ..... on an apple tree and 10 apples on the .....

**apples are there in all?**

The number of apples = ..... apples.



- c** 16 flowers her sister in all

Salma planted 46 flowers and ..... planted .....

**How many flowers has Salma and her sister planted ?**

The planted flowers = ..... flowers.



**I learned**

- How to solve addition story problems.



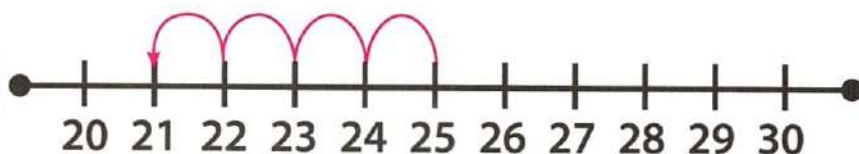


# Subtracting using mental math strategies

In this lesson we are going to solve subtraction problems using different ways.

On number line  
count backward

$$25 - 4$$



Fact family

$$21 + 4 = 25$$

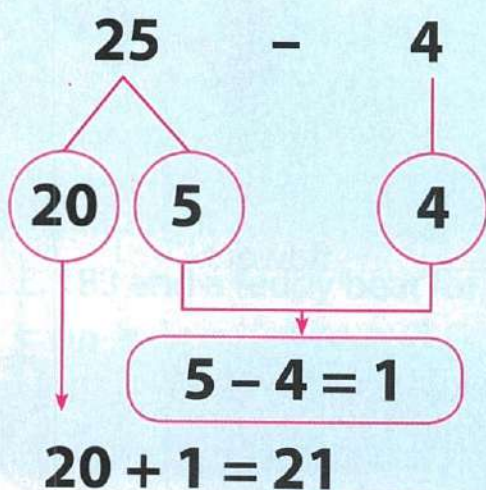
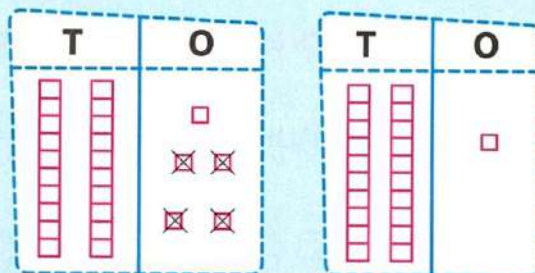
$$4 + 21 = 25$$

$$25 - 4 = 21$$

$$25 - 21 = 4$$

On place value mat

$$25 - 4 = 21$$



on the 120 chart

11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

Count backward

$$25 - 4 = 21$$

## Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around the date of today.

**Key words:** Place - Value mat - Fact family - Decomposing - 120 chart - Count backward - Number line.



**Activity 1** Solve the following problems using the 100 chart:

**a**

$$\begin{array}{r} 38 \\ - 20 \\ \hline \end{array}$$

**b**

$$\begin{array}{r} 84 \\ - 19 \\ \hline \end{array}$$

**c**

$$\begin{array}{r} 42 \\ - 17 \\ \hline \end{array}$$

**d**

$$\begin{array}{r} 99 \\ - 40 \\ \hline \end{array}$$

**e**

$$\begin{array}{r} 78 \\ - 64 \\ \hline \end{array}$$

**f**

$$\begin{array}{r} 66 \\ - 10 \\ \hline \end{array}$$

**Activity 2** Solve the following problems using the place value mat:

**Example**

Tens	Ones

**a**

Hundred	Tens	Ones
4	4	4
1	3	7

**b**

Tens	Ones
2	5
1	8

**c**

Hundreds	Tens	Ones
2	7	4
	8	2

**Parents' Tips:**

- Help your child solve subtraction problems using different strategies.



**Activity 3** Solve following problems:**Example**

$$\begin{array}{r} \overset{(7)}{2} \overset{(11)}{\cancel{8}1} \\ - 143 \\ \hline 138 \end{array}$$

$$\begin{array}{r} \text{a} \\ 562 \\ - 238 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b} \\ 324 \\ - 179 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c} \\ 781 \\ - 194 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d} \\ 590 \\ - 289 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e} \\ 920 \\ - 132 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f} \\ 684 \\ - 530 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g} \\ 950 \\ - 679 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h} \\ 521 \\ - 61 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i} \\ 249 \\ - 134 \\ \hline \end{array}$$

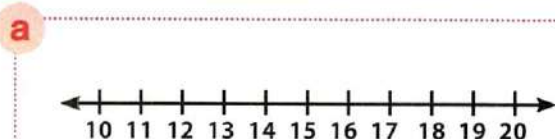
$$\begin{array}{r} \text{j} \\ 703 \\ - 147 \\ \hline \end{array}$$

$$\begin{array}{r} \text{k} \\ 822 \\ - 385 \\ \hline \end{array}$$

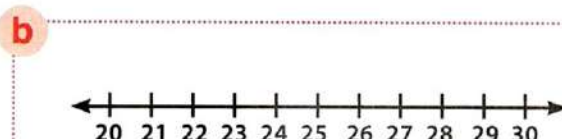
$$\begin{array}{r} \text{l} \\ 609 \\ - 389 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m} \\ 700 \\ - 343 \\ \hline \end{array}$$

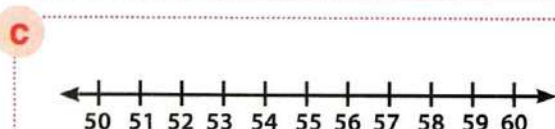
$$\begin{array}{r} \text{n} \\ 150 \\ - 99 \\ \hline \end{array}$$

**Activity 4** Use the number line to solve the following problems:

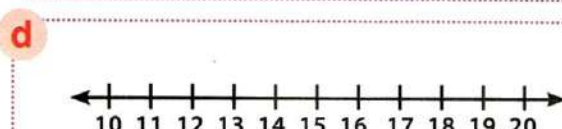
$$12 - 2 = \square$$



$$24 - 4 = \square$$



$$55 - 4 = \square$$



$$17 - 3 = \square$$

**Parents' Tips:**

• Help your child solve subtraction problems.

### Activity



5



**Solve the following problems by decomposing:**




### Example

98	90	8	
-	-	-	
34	30	4	
	60	4	64

**a**

36 →  + 

22 →  + 

 +  = 

**b**

35 → 

XXXXXX	+	XXXXXX
—		—
XXXXXX	+	XXXXXX
XXXXXX	+	XXXXXX

12 → 

XXXXXX	+	XXXXXX
XXXXXX	+	XXXXXX
XXXXXX	+	XXXXXX

### Example

Diagram illustrating the subtraction process:

- 97 is decomposed into 90 and 7.
- 86 is decomposed into 80 and 6.
- Subtraction of tens:  $90 - 80 = 10$
- Subtraction of ones:  $7 - 6 = 1$
- Final result:  $10 + 1 = 11$

C

Diagram illustrating the subtraction of 53 from 89 using the decomposition method:

- 89 is decomposed into 80 and 9.
- 53 is decomposed into 50 and 3.
- 80 minus 50 equals 30.
- 9 minus 3 equals 6.
- 30 plus 6 equals 36.

**d**

Diagram illustrating the subtraction  $94 - 84$  using base ten blocks. The top row shows 94 (9 tens, 4 ones) and 84 (8 tens, 4 ones). The middle row shows the blocks being subtracted: 8 tens and 4 ones from the 94. The bottom row shows the result: 10 tens and 0 ones, which is 100.

### Activity

6

**Solve the following problems using fact family numbers:**

### Example

11 7 18

$$\underline{7} + \underline{11} = \underline{18}$$

$$11 + 7 = 18$$

$$18 - 7 = 11$$

$$\begin{array}{r} 18 \\ 11 \\ 7 \end{array}$$

**a**

4 9 5

..... + ..... = .....

..... + ..... = .....

..... - ..... = .....

..... = .....

**b**

8 6 14

..... + ..... = .....

$$\text{.....} + \text{.....} = \text{.....}$$

=====

..... - ..... = .....



## I learned

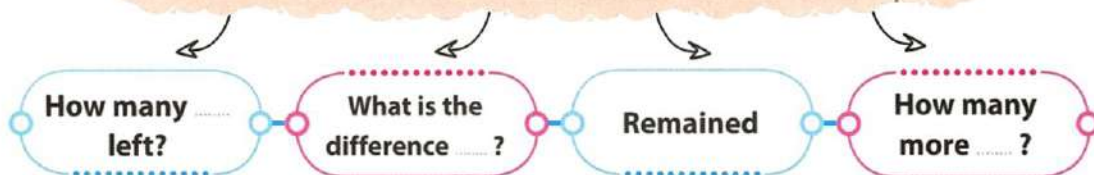
- How to solve subtraction problems using different strategies.





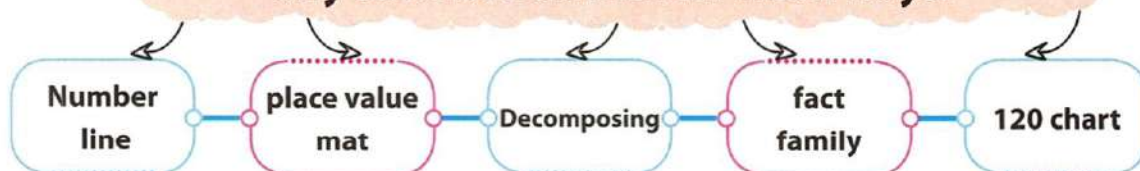
# Subtraction story problems

We can solve subtraction story problems when we see these words:



Laila had 89 crackers, she gave her brother Karim 17 crackers, how many crackers are left with her?  
 $89 - 17 = 72$  crackers

To solve the previous problem, you can use any subtraction mental math ways:



$$\begin{array}{r}
 89 \\
 - 17 \\
 \hline
 \end{array}$$

$$\begin{array}{l}
 80 \quad 9 \quad 10 \quad 7 \\
 \downarrow \quad \downarrow \\
 80 - 10 = 70 \quad 9 - 7 = 2 \\
 70 + 2 = 72
 \end{array}$$

Decomposing strategy

## Daily Practice:

- Encourage your child to look at the calendar and ask him/her to draw a circle around the date of today and color the date of yesterday with any primary color.

**Key words:** How many more - Left - Difference - Remained



**Activity 1** Read, think, then solve:

- a** Amar's football team scored 28 goals and Marwan's football team scored 19 goals, **find the difference between the number of goals of the two teams.**



The difference = ..... goals.

- b** Alaa caught 103 fish. He put 19 fish back in the lake. **How many fish does he have now?**



Alaa has = ..... fish.

- c** Sahar read 90 stories and Zainab reads 82 stories. **How many more stories did Sahar read?**



The number of stories = ..... stories.

- d** Salma planted 107 trees, and her friend planted 65 trees. **How many more trees did Salma plant than her friend?**



The number of trees = ..... trees.

**Parents' Tips:**

- Help your child solve different subtraction story problems.



## Activity

2

Complete the story problems using the given words, then answer:

- a remained L.E. 160 How much

Malak had ..... She went to the clothes store, she bought a skirt for L.E. 58

..... **money** ..... **with her?**

The remained money = L.E. ....



- b 529 birds more 214 monkeys

In the Zoo, there are ..... and .....

**How many** ..... **birds than monkeys**  
**are there?**

The number of birds = ..... birds



- c left 29 birds How many

There are 47 birds on a tree. A loud noise scares ..... away.

..... **birds are** ..... **on the tree?**

The number of birds = ..... birds.



## I learned

- How to solve subtraction story problems.



## Math games using addition and subtraction strategies

This lesson is to play math games using addition and subtraction operation like the following game.



Using the following number cards write the digits according to the colored circles then, find the result:

  <hr/>	  <hr/>	  <hr/>	  <hr/>
---------------	---------------	---------------	---------------

**Activity 1** Find the following sums and differences:

a  -	b  +	c  +	d  -	e  +	f  -
				g  -	h  +



### Daily Practice:

• Encourage your child to look at the calendar and ask him/her to color the date of today in red.

**Key words:** Addition - Subtraction



## Activity

2

Play the following math game by solving addition and subtraction problems using any strategy:

$$423 + 211 = \dots\dots\dots$$

$$657 + 66 = \dots\dots\dots$$

+

64

+

119

-

569

-

690

-

199

+

=

-

- 79 =

+

607

$$311 + 659 = \dots\dots\dots$$

-

123

+

235

$$986 - \dots\dots\dots = \dots\dots\dots$$

+

604

+

563

=

+

524

$$\dots\dots\dots - 420 = \dots\dots\dots$$

+

811

-

 $\dots\dots\dots$ 

=

+

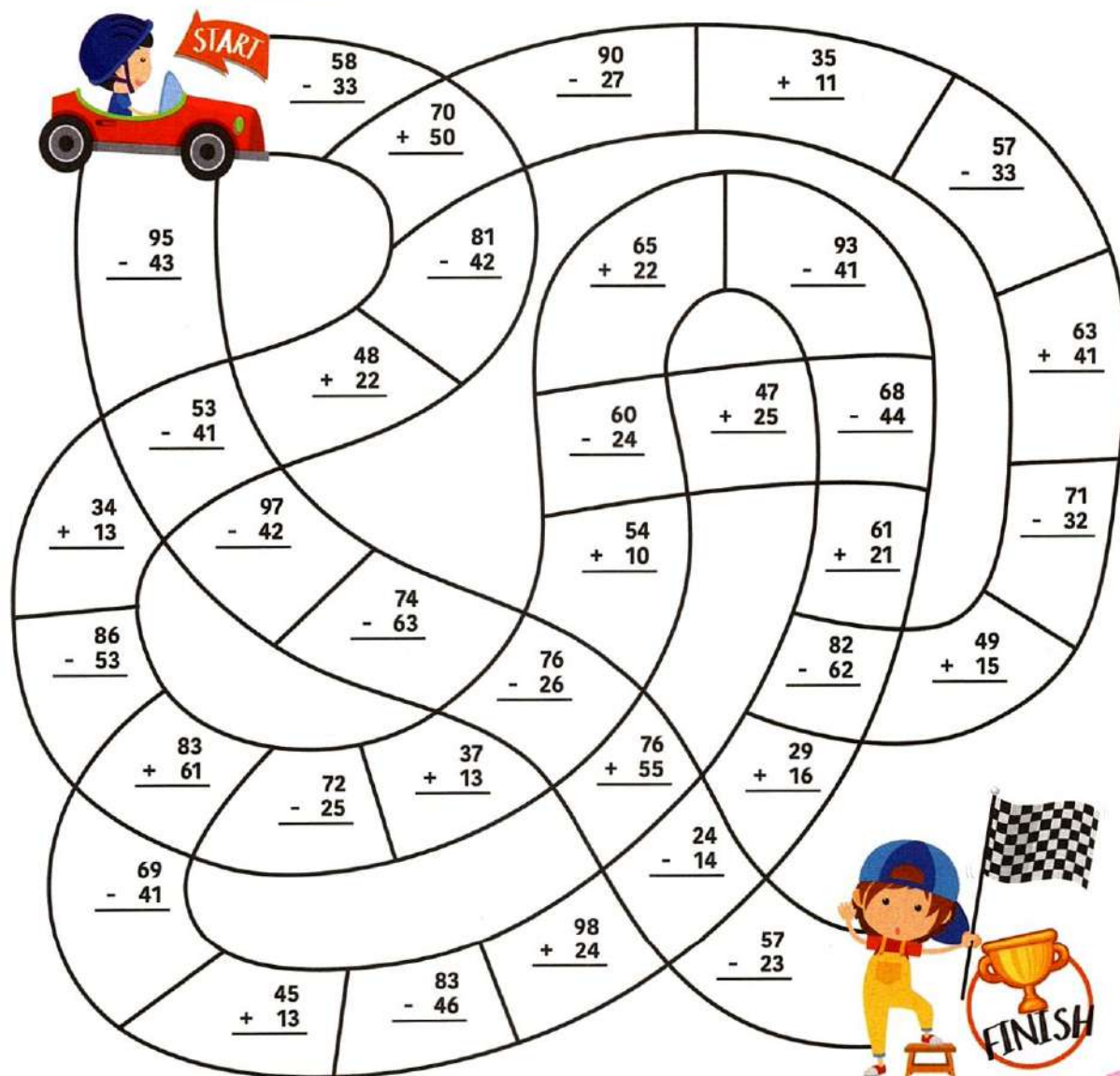
232

-

600

Activity 3

Help Omar finish the race quickly by solving the following problems, then color the odd result in red and the even result in yellow:



I learned

- How to use different mental math strategies to add and subtract.
- How to play some math games using addition and subtraction operations.





# Summary



Form a bar graph and a pictograph.

Play math games using addition and subtraction operations.

Create arrays with given rows and columns.

Solve addition and subtraction story problems.

Calculate the total number of objects in an array.

Add and subtract two numbers using different strategies.

Compare between the number of objects of two arrays.



# General Activities on Chapter 6

1 Solve the following problems using the place value mat:

a

$$\begin{array}{r} 326 \\ - 136 \\ \hline \end{array}$$

H	T	O

b

$$\begin{array}{r} 154 \\ + 37 \\ \hline \end{array}$$

H	T	O

2

Solve, then color the carrot which has the greatest answer in orange and the carrot which has the smallest answer in yellow:

a

$$\begin{array}{r} 560 \\ - 245 \\ \hline \end{array}$$

b

$$\begin{array}{r} 255 \\ + 38 \\ \hline \end{array}$$

c

$$\begin{array}{r} 754 \\ - 64 \\ \hline \end{array}$$

d

$$\begin{array}{r} 169 \\ + 388 \\ \hline \end{array}$$

e

$$\begin{array}{r} 573 \\ + 248 \\ \hline \end{array}$$

f

$$\begin{array}{r} 565 \\ + 121 \\ \hline \end{array}$$

g

$$\begin{array}{r} 832 \\ - 498 \\ \hline \end{array}$$

h

$$\begin{array}{r} 674 \\ + 299 \\ \hline \end{array}$$

i

$$\begin{array}{r} 785 \\ - 83 \\ \hline \end{array}$$

j

$$\begin{array}{r} 628 \\ + 73 \\ \hline \end{array}$$



**3 Solve the following problems using decomposing strategy:**

**a**

$696$   
 $- 385$

$\dots + \dots + \dots$

$\dots + \dots + \dots$

$\dots + \dots + \dots = \dots$

**b**

$831$   
 $+ 158$

$\dots + \dots + \dots$

$\dots + \dots + \dots$

$\dots + \dots + \dots = \dots$

**4 Solve the following problems using fact family numbers:**

**a**

6
5
11

$\dots + \dots = \dots$

$\dots + \dots = \dots$

$\dots - \dots = \dots$

$\dots - \dots = \dots$

**b**

6
9
15

$\dots + \dots = \dots$

$\dots + \dots = \dots$

$\dots - \dots = \dots$

$\dots - \dots = \dots$

**c**

4
2
6

$\dots + \dots = \dots$

$\dots + \dots = \dots$

$\dots - \dots = \dots$

$\dots - \dots = \dots$

**5 Read, think, then solve:**

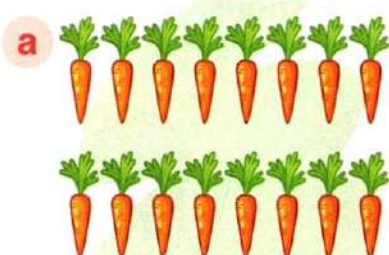
- a** Amal bought a scooter for L.E. 183 and a teddy bear for L.E. 29, **find the total money she paid.**

What she paid = L.E.  $\dots$  + L.E.  $\dots$   
 = L.E.  $\dots$

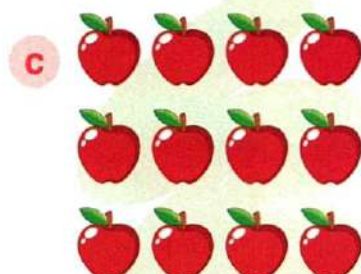
- b** Samir bought a new book of 323 pages, he read 108 pages of them, **how many more pages does he need to read to finish the book?**

The number of pages he has to read =  $\dots - \dots$   
 =  $\dots$  pages

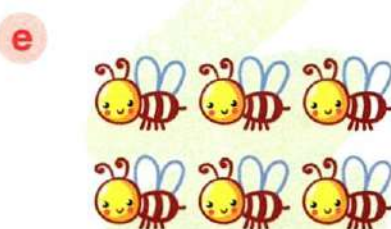
**6** Write the name and one of its addition sentence of the following arrays:

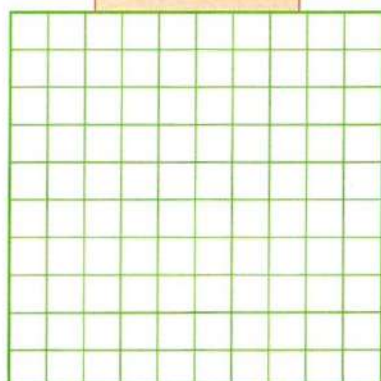

  

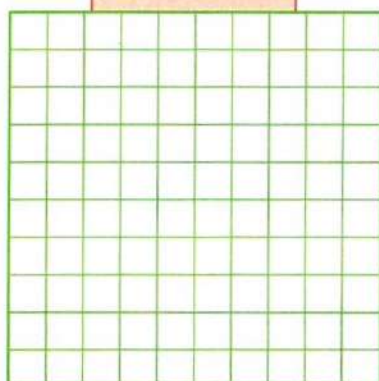

  


**7** Draw an array according to the given name:

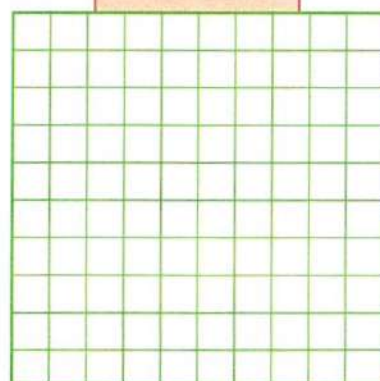
**a** 2 by 6



**b** 7 by 4



**c** 3 by 3





8

Laila's teacher asked her and her friends in school to collect information about their favorite type of fruits. Help them collect data and represent what they collected on a bar graph, then answer the questions.



20

Strawberry



40

Watermelon



15

Apple



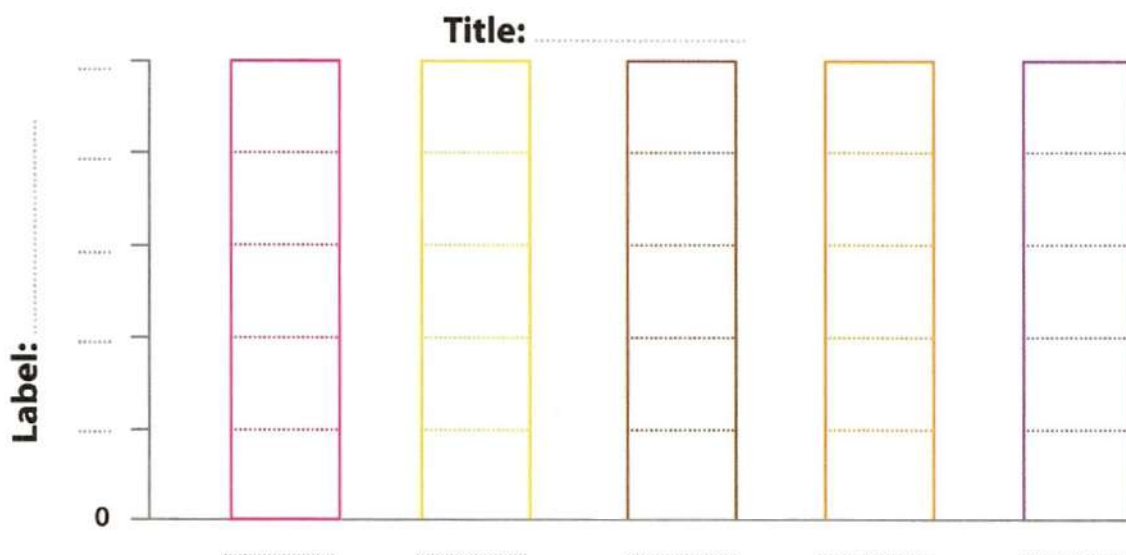
35

Peach



10

Berry



Label: \_\_\_\_\_

a How many students liked  ,  and  ?

+  +

b How many **more** students liked  **than**  ?

-

c Which is the **most** favorite fruit?

d Arrange the fruits according to the number of Laila's friends who like it ascendingly.

# Ongoing Assessment

## Part 1



- Assessment Sheets on each Lesson of the Chapter
- Assess Your Progress





### Activity 1

1

Write the value of each banknote:

a



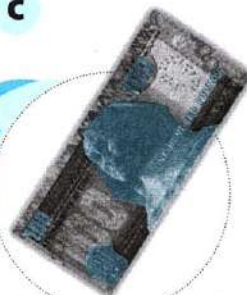
L.E. \_\_\_\_\_

b



L.E. \_\_\_\_\_

c



L.E. \_\_\_\_\_

d



L.E. \_\_\_\_\_

### Activity 2

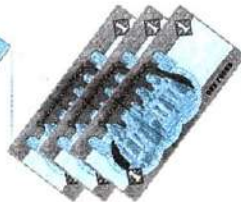
2

Estimate, then circle the suitable price for each object:

a



b



c



d





# Sheet 2 on Lesson 62

## Activity 1

Complete to form an equal amount of banknotes using (L.E. 5 , L.E. 10 , L.E. 20 , L.E. 50 , L.E. 100 and L.E. 200):

a

$$\begin{array}{|c|} \hline \text{L.E.} \\ \hline 50 \\ \hline \end{array} = \begin{array}{|c|} \hline \text{L.E.} \\ \hline 20 \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array}$$

b

$$\begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{L.E.} \\ \hline 50 \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline 50 \\ \hline \end{array}$$

c

$$\begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{L.E.} \\ \hline 100 \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline 50 \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline 20 \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline 20 \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline 10 \\ \hline \end{array}$$

d

$$\begin{array}{|c|} \hline \text{L.E.} \\ \hline 10 \\ \hline \end{array} = \begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array}$$

e

$$\begin{array}{|c|} \hline \text{L.E.} \\ \hline 100 \\ \hline \end{array} = \begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array}$$

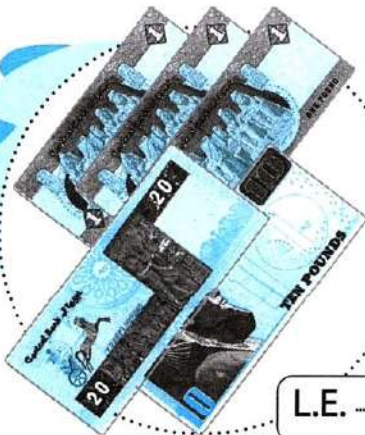
f

$$\begin{array}{|c|} \hline \text{L.E.} \\ \hline \text{.....} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{L.E.} \\ \hline 100 \\ \hline \end{array} + \begin{array}{|c|} \hline \text{L.E.} \\ \hline 100 \\ \hline \end{array}$$

## Activity 2

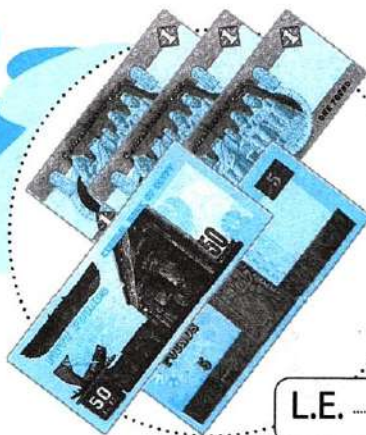
Write the total amount:

a



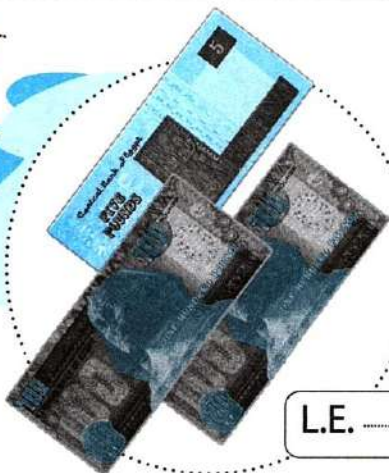
L.E. ....

b



L.E. ....

c



L.E. ....

d



L.E. ....





# Sheet 3 on Lesson 63

## Activity

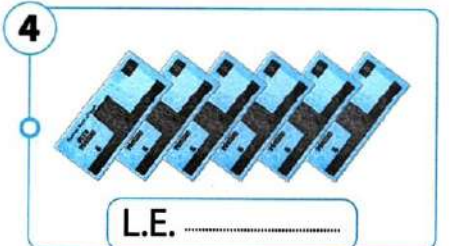
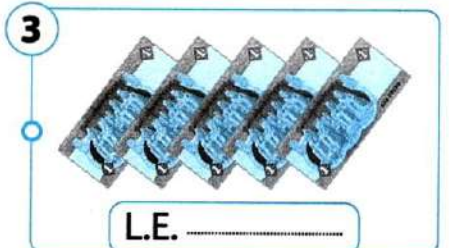
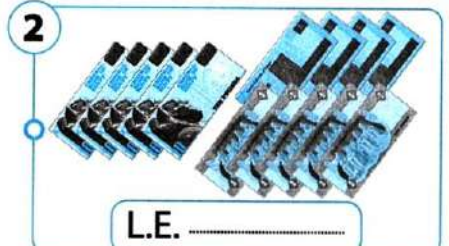
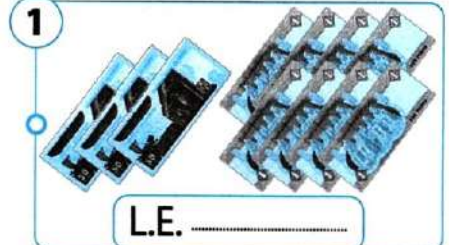
Show the price of each object in 2 different ways:

Example:	First way	Second way
	 L.E. 95	 L.E. 95
a 		
b 		
c 		
d 		
e 		

# Sheet 4 on Lesson 64

## Activity

Use your 120-chart to write the total amount of money, then match each object to its price:





# Sheet 5 on Lesson 65

## Activity

Find the child that can buy the objects according to his/her budget, then write the money left in his/her budget: (Each child will choose only one object).

Ahmed



L.E. 58

Laila



L.E. 35

Yassin



L.E. 230

Perry



L.E. 170

a



Who can buy 2 pairs of shoes?

\_\_\_\_\_ can buy 2 pairs of shoes.

\_\_\_\_\_ is the amount of money left in his/her budget.

b



Who can buy 2 teddy bears?

\_\_\_\_\_ can buy 2 teddy bears.

\_\_\_\_\_ is the amount of money left in his/her budget.

c



Who can buy 1 guitar?

\_\_\_\_\_ can buy 1 guitar.

\_\_\_\_\_ is the amount of money left in his/her budget.

d



Who can buy 1 watch?

\_\_\_\_\_ can buy 1 watch.

\_\_\_\_\_ is the amount of money left in his/her budget.



## Activity

**1****Read, think then solve:**

- a** Dalia had L.E. 25 in her wallet, her father gave her L.E. 30 more.

**How much money in total does she have in her wallet?**

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- b** Mohamed had L.E. 100, he bought shoes for L.E. 55.

**How much money left with him?**

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## Activity

**2****Read, then color the correct answer:**

- a** How much money would it cost Ali to buy a shirt for L.E. 75 and a hat for L.E. 12?

L.E. 87

L.E. 63

L.E. 90

- b** How much money left with Sara if she had L.E. 98 and she bought a dress for L.E. 60?

L.E. 100

L.E. 38

L.E. 80





# Sheet 7 on Lesson 67

## Activity

Color the correct amounts of money that represent each place value/money mat:

**a**

L.E. 100	L.E. 10	L.E. 1
		

L.E. 211

L.E. 201

L.E. 221

**b**


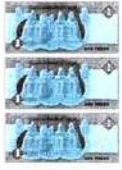
L.E. 100	L.E. 10	L.E. 1
		

L.E. 150

L.E. 15

L.E. 105

**c**



L.E. 100	L.E. 10	L.E. 1
		

L.E. 313

L.E. 31

L.E. 303

**d**




L.E. 100	L.E. 10	L.E. 1
		

L.E. 42

L.E. 24

L.E. 204

**e**

L.E. 100	L.E. 10	L.E. 1
		

L.E. 401

L.E. 114

L.E. 411

**f**

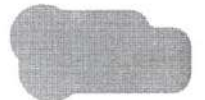
L.E. 100	L.E. 10	L.E. 1
		

L.E. 111

L.E. 101

L.E. 11

# Sheet 8 on Lesson 68



## Activity

Solve the following problems using the place value / money mat:

**a**      L.E. 315      +      L.E. 45      =      \_\_\_\_\_

L.E. 100   L.E. 10   L.E. 1

--	--	--

+

L.E. 100   L.E. 10   L.E. 1

--	--	--

=

L.E. 100   L.E. 10   L.E. 1

--	--	--

**b**      L.E. 183      +      L.E. 25      =      \_\_\_\_\_

L.E. 100   L.E. 10   L.E. 1

--	--	--

+

L.E. 100   L.E. 10   L.E. 1

--	--	--

=

L.E. 100   L.E. 10   L.E. 1

--	--	--

**c**      L.E. 763      +      L.E. 89      =      \_\_\_\_\_

L.E. 100   L.E. 10   L.E. 1

--	--	--

+

L.E. 100   L.E. 10   L.E. 1

--	--	--

=

L.E. 100   L.E. 10   L.E. 1

--	--	--

**d**      L.E. 34      +      L.E. 199      =      \_\_\_\_\_

L.E. 100   L.E. 10   L.E. 1

--	--	--

+

L.E. 100   L.E. 10   L.E. 1

--	--	--

=

L.E. 100   L.E. 10   L.E. 1

--	--	--





## Sheet 9 on Lesson 69

Activity

1

Solve the following problems using the place value / money mat:

a L.E. 503 - L.E. 101 = \_\_\_\_\_

L.E. 100	L.E. 10	L.E. 1

b L.E. 756 - L.E. 327 = \_\_\_\_\_

L.E. 100	L.E. 10	L.E. 1

c L.E. 384 - 192 = \_\_\_\_\_

L.E. 100	L.E. 10	L.E. 1

d L.E. 185 - 76 = \_\_\_\_\_

L.E. 100	L.E. 10	L.E. 1

Activity

2

Tick (✓) the correct operation for each result:

a L.E. 100 L.E. 10 L.E. 1



- ☐ 305 - 183      ☐ 395 - 163  
☐ 305 - 103

b L.E. 100 L.E. 10 L.E. 1



- ☐ 170 - 24      ☐ 170 - 34  
☐ 186 - 14



## Activity

Read, think then solve by using the place value / money mat:

- a** Rasha had L.E. 240. She bought perfume for L.E. 115.

**How much money left with her?**

The money left with Rasha = \_\_\_\_\_ - \_\_\_\_\_ = L.E. \_\_\_\_\_

L.E. 100	L.E. 10	L.E. 1

- b** Zein bought a shirt for L.E. 180 and trousers for L.E. 309.

**How much money he will pay?**

The money Zein will pay = \_\_\_\_\_ + \_\_\_\_\_ = L.E. \_\_\_\_\_

L.E. 100	L.E. 10	L.E. 1

- c** Laila had L.E. 158. She bought a skirt for L.E. 88.

**How much money left with Laila?**

The money left with Laila = \_\_\_\_\_ - \_\_\_\_\_ = L.E. \_\_\_\_\_



# Sheet 11 on Chapter 1

**Activity 1** Circle the banknotes that can be used to buy each object:

**a**

**b**

**Activity 2** Tick ☒ if the budget of the child is enough to buy the object and ☐ if the budget is not enough:

**a**

**b**

**c**

**Activity 3** Read, think, then solve:

- a** Ola bought a doll for L.E. 75 and a dress for L.E. 158.

**How much money did she pay?**

What she paid =  +  = L.E.

- b** Nader has L.E. 230. He wanted to buy a ball which cost L.E. 182.

**How much money left with him?**

The money left =  -  = L.E.



Activity

4

Represent the following amounts of money on the place value / money mat:

a L.E. 503

L.E. 100 L.E. 10 L.E. 1


b L.E. 155

L.E. 100 L.E. 10 L.E. 1


c L.E. 630

L.E. 100 L.E. 10 L.E. 1


Activity

5

Solve the following problem using place value / money mat:

a L.E. 305 + L.E. 219 = \_\_\_\_\_

L.E. 100 L.E. 10 L.E. 1


b L.E. 918 - L.E. 563 = \_\_\_\_\_

L.E. 100 L.E. 10 L.E. 1


Activity

6

Read, think, then solve:

a Selim had L.E. 500. He gave his brother Yassin L.E. 210.  
How much money left with Selim?

---



---

b Hussein bought a jacket for L.E. 356 and a T-shirt for L.E. 208.  
How much money will Hussein pay for all?

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# Assess Your Progress

(1) I can compare Egyptian banknotes.

(2) I can combine L.E.1, 5, 10, 20, 50 and 100 to create a given total.

(3) I can decompose and combine banknotes using different ways.

(4) I can solve story problems about addition and subtraction involving money.

(5) I can add and subtract 2 and 3-digit numbers with and without regrouping by the using the place value/money mat.



Teacher's comment



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Points of strength: \_\_\_\_\_

Points to improve: \_\_\_\_\_



## Activity

1

Color the even numbers in red and the odd numbers in yellow:



99



18



324



37



55



127



9



85



300



118



30



103



278



718



20



90

## Activity

2

Write (even or odd) below each number:

a

718

---

b

200

---

c

511

---

d

673

---

e

99

---

f

537

---

g

353

---

h

290

---





## Sheet 13 on Lesson 72

Activity

1

Write down 5 examples for adding doubles:

Example 3 + 3

= 6 an even number

a ..... + .....

= ..... an even number

b ..... + .....

= ..... an even number

c ..... + .....

= ..... an even number

d ..... + .....

= ..... an even number

e ..... + .....

= ..... an even number

Activity

2

Find the result, then color to choose even or odd:

a 4 + 4

= .....

even

odd

b 8 + 8

= .....

even

odd

c 1 + 1

= .....

even

odd

d 2 + 2

= .....

even

odd

e 11 + 11

= .....

even

odd

f 9 + 9

= .....

even

odd

g 20 + 20

= .....

even

odd

h 14 + 14

= .....

even

odd

i 7 + 7

= .....

even

odd

# Sheet 14 on Lesson 73



## Activity 1 Complete, then match:

a  $14 + 15 = \dots\dots\dots$  ○

○ odd + even =  $\dots\dots\dots$

b  $6 + 10 = \dots\dots\dots$  ○

○ even + odd =  $\dots\dots\dots$

c  $3 + 9 = \dots\dots\dots$  ○

○ even + even =  $\dots\dots\dots$

d  $11 + 2 = \dots\dots\dots$  ○

○ odd + odd =  $\dots\dots\dots$

## Activity 2 Find the result, then color whether the answer is an even or odd number:



a  $4 + 2 = \dots\dots\dots$

even

odd



b  $6 + 3 = \dots\dots\dots$

even

odd



c  $2 + 11 = \dots\dots\dots$

even

odd



d  $8 + 0 = \dots\dots\dots$

even

odd



e  $0 + 5 = \dots\dots\dots$

even

odd



f  $10 + 10 = \dots\dots\dots$

even

odd

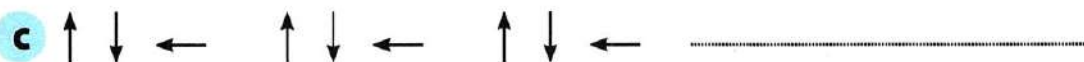




# Sheet 15 on Lesson 74

## Activity

Complete the following patterns:



# Sheet 16 on Lesson 75



Activity

1

Start with the given number, then create each pattern using the given rule:

a

+5

60, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_

b

+3

92, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_

c

+10

20, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_

d

+5

83, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_

Activity

2

Color the correct rule which is used in each pattern:

a

96, 98, 100 and 102

+20

+2

b

15, 20, 25 and 30

+5

+15

c

10, 20, 30 and 40

+10

+1

d

50, 53, 56 and 59

+30

+3





## Sheet 17 on Lesson 76

Activity

1

Complete the pattern by identifying the rule:

a 87, 77, 67, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ Rule: \_\_\_\_\_

b 95, 90, 85, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ Rule: \_\_\_\_\_

c 42, 38, 34, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ Rule: \_\_\_\_\_

d 23, 21, 19, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ Rule: \_\_\_\_\_

Activity

2

Start with the given number, then create each pattern using the given rule:

a  $-6$  64, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_

b  $-3$  \_\_\_\_\_, 21, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_

c  $-5$  \_\_\_\_\_, 110, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_

d  $-10$  \_\_\_\_\_, 77, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_

e  $-2$  \_\_\_\_\_, 48, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_

## Activity 1 Complete the patterns by identifying the rules:

a	35	38	37	40	<input type="text"/>	<input type="text"/>	Rule: <input type="text"/>	
b	54	50	51	47	<input type="text"/>	<input type="text"/>	Rule: <input type="text"/>	
c	16	26	25	35	<input type="text"/>	<input type="text"/>	Rule: <input type="text"/>	
d	41	42	40	41	39	<input type="text"/>	<input type="text"/>	Rule: <input type="text"/>
e	99	88	90	79	<input type="text"/>	<input type="text"/>	Rule: <input type="text"/>	

## Activity 2 Circle the correct rule that represents each pattern:

a	53	43	46	36	39	29	<input type="text"/> + 10, - 3 <input type="text"/> - 10, + 3 <input type="text"/> - 3, + 10
b	12	17	15	20	18	23	<input type="text"/> + 5, - 2 <input type="text"/> - 5, + 2 <input type="text"/> + 5, + 2
c	35	45	44	54	53	63	<input type="text"/> - 10, - 1 <input type="text"/> - 10, + 1 <input type="text"/> + 10, - 1
d	23	26	24	27	25	28	<input type="text"/> + 3, - 2 <input type="text"/> - 2, + 3 <input type="text"/> - 3, + 2



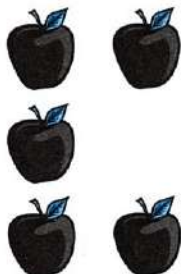


# Sheet 19 on Lesson 78

## Activity

Look at the following figures, then write whether it is an array or not array:

a



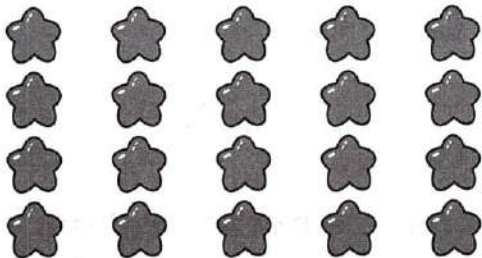
.....

b



.....

c



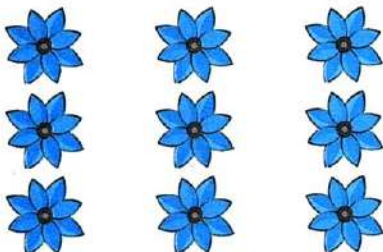
.....

d



.....

e



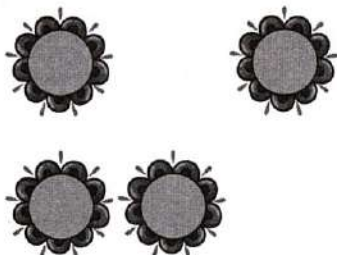
.....

f



.....

g



.....

h

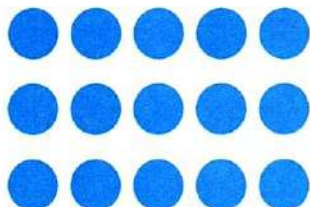


.....



## Activity 1 Complete:

a



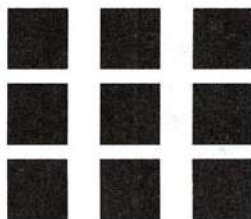
rows

=

columns

=

b



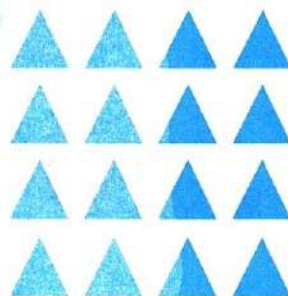
rows

=

columns

=

c



rows

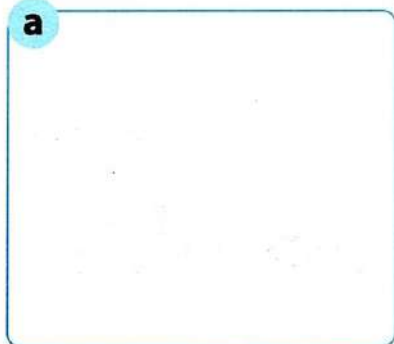
=

columns

=

## Activity 2 Build an array according to the given name:

a



6 by 2

b



3 by 4

c



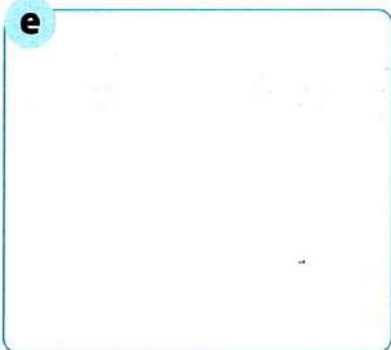
5 by 1

d



4 by 5

e



2 by 3

f



7 by 1



# Sheet 21 on Chapter 2

**Activity 1** Add, then underline the correct word (even or odd):

a  $21 + 6 = \underline{\hspace{2cm}}$

even

odd

b  $5 + 9 = \underline{\hspace{2cm}}$

even

odd

c  $30 + 10 = \underline{\hspace{2cm}}$

even

odd

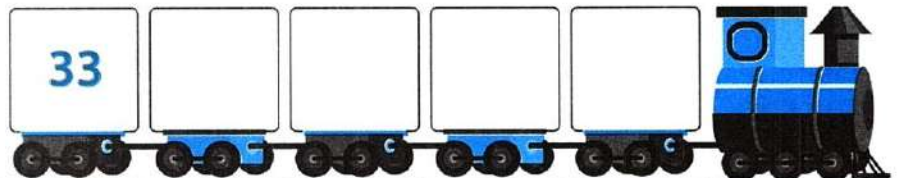
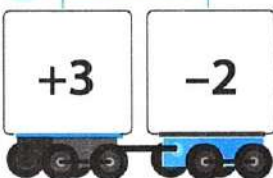
d  $12 + 13 = \underline{\hspace{2cm}}$

even

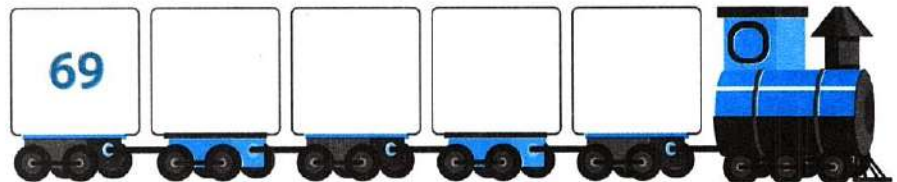
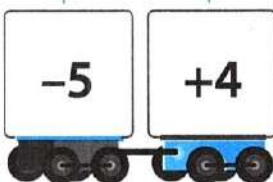
odd

**Activity 2** Create the pattern using the shown rule:

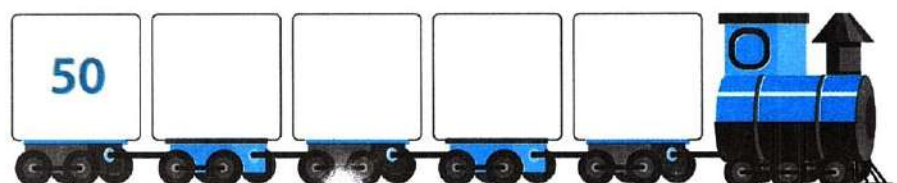
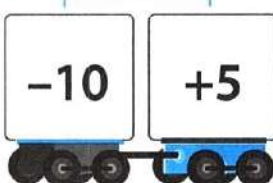
a Rule



b Rule



c Rule

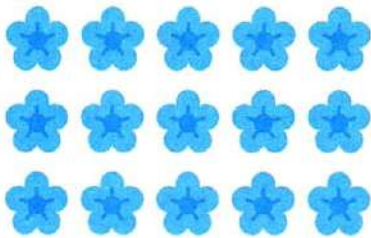


# Activity

3

Write the name of each array:

a



..... rows ..... columns

..... by .....

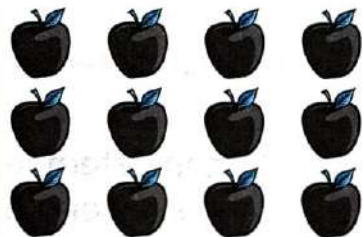
b



..... rows ..... columns

..... by .....

c



..... rows ..... columns

..... by .....

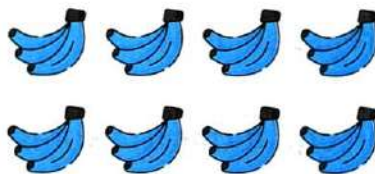
d



..... rows ..... columns

..... by .....

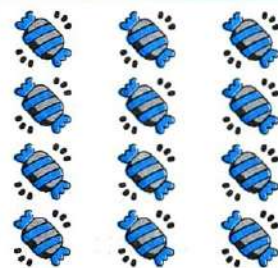
e



..... rows ..... columns

..... by .....

f



..... rows ..... columns

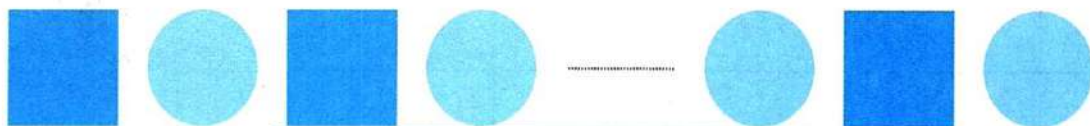
..... by .....

# Activity

4

Look at each pattern below and draw the missing shapes:

a



Rule: .....

b



Rule: .....

c



Rule: .....



# Assess Your Progress

(1) I can determine whether a number is even or odd.

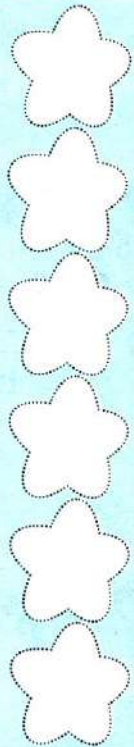
(2) I can determine whether doubling a number results an even or odd number.

(3) I can add or subtract to extend a pattern.

(4) I can create a pattern rule.

(5) I can define and create an array.

(6) I can write addition equations to express the total number of objects in an array.



Teacher's comment

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Points of strength: .....

Points to improve: .....



## Activity

1

Use front-end strategy to estimate the addition or subtraction, then find the actual result:

a

Actual

Estimated

$$\begin{array}{r} 54 \\ + 28 \\ \hline \end{array} \rightarrow \begin{array}{r} + \\ \hline \end{array}$$

b

Actual

Estimated

$$\begin{array}{r} 83 \\ - 55 \\ \hline \end{array} \rightarrow \begin{array}{r} - \\ \hline \end{array}$$

c

Actual

Estimated

$$\begin{array}{r} 76 \\ + 52 \\ \hline \end{array} \rightarrow \begin{array}{r} + \\ \hline \end{array}$$

d

Actual

Estimated

$$\begin{array}{r} 69 \\ - 10 \\ \hline \end{array} \rightarrow \begin{array}{r} - \\ \hline \end{array}$$

e

Actual

Estimated

$$\begin{array}{r} 74 \\ + 19 \\ \hline \end{array} \rightarrow \begin{array}{r} + \\ \hline \end{array}$$

f

Actual

Estimated

$$\begin{array}{r} 93 \\ - 54 \\ \hline \end{array} \rightarrow \begin{array}{r} - \\ \hline \end{array}$$

## Activity

2

Estimate using front-end strategy, then match:

a

$58 + 32$



50

b

$79 - 31$



40

c

$44 + 19$



70

d

$86 - 12$



90

e

$66 + 31$



80





# Sheet 23 on Lesson 82

## Activity 1

Color the correct estimation for the following numbers using rounding strategy:

a

67 is rounded \_\_\_\_\_

up to 70

down to 60

b

92 is rounded \_\_\_\_\_

up to 100

down to 90

c

88 is rounded \_\_\_\_\_

up to 90

down to 80

d

55 is rounded \_\_\_\_\_

up to 60

down to 50

## Activity 2

Estimate the difference or the sum using rounding strategy, then find the actual result:

a

Actual

$$\begin{array}{r} 63 \\ + 25 \\ \hline \end{array}$$

Estimated

$$\begin{array}{r} \dots\dots\dots \\ + \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$$

b

Actual

$$\begin{array}{r} 55 \\ - 19 \\ \hline \end{array}$$

Estimated

$$\begin{array}{r} \dots\dots\dots \\ - \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$$

c

Actual

$$\begin{array}{r} 38 \\ + 28 \\ \hline \end{array}$$

Estimated

$$\begin{array}{r} \dots\dots\dots \\ + \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$$

d

Actual

$$\begin{array}{r} 78 \\ - 23 \\ \hline \end{array}$$

Estimated

$$\begin{array}{r} \dots\dots\dots \\ - \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$$

e

Actual

$$\begin{array}{r} 34 \\ + 21 \\ \hline \end{array}$$

Estimated

$$\begin{array}{r} \dots\dots\dots \\ + \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$$

f

Actual

$$\begin{array}{r} 86 \\ - 35 \\ \hline \end{array}$$

Estimated

$$\begin{array}{r} \dots\dots\dots \\ - \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$$

g

Actual

$$\begin{array}{r} 22 \\ + 18 \\ \hline \end{array}$$

Estimated

$$\begin{array}{r} \dots\dots\dots \\ + \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$$

h

Actual

$$\begin{array}{r} 59 \\ - 11 \\ \hline \end{array}$$

Estimated

$$\begin{array}{r} \dots\dots\dots \\ - \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$$

# Sheet 24 on Lesson 83

**Activity 1** Round the following numbers to the nearest hundred:

**a** 380 is closer to

**b** 290 is closer to

**c** 170 is closer to

**d** 117 is closer to

**e** 908 is closer to

**f** 886 is closer to

**g** 535 is closer to

**h** 121 is closer to

**i** 444 is closer to

**j** 749 is closer to

**Activity 2** Estimate the difference or the sum using rounding and front-end strategies, then find the actual result:

	Actual	Front-end	Rounding
<b>a</b>	$\begin{array}{r} 781 \\ - 322 \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \end{array}$

	Actual	Front-end	Rounding
<b>b</b>	$\begin{array}{r} 483 \\ + 314 \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ + \phantom{000} \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ + \phantom{000} \\ \hline \end{array}$

	Actual	Front-end	Rounding
<b>c</b>	$\begin{array}{r} 658 \\ + 124 \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ + \phantom{000} \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ + \phantom{000} \\ \hline \end{array}$

	Actual	Front-end	Rounding
<b>d</b>	$\begin{array}{r} 578 \\ - 314 \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \end{array}$

	Actual	Front-end	Rounding
<b>e</b>	$\begin{array}{r} 193 \\ - 138 \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ - \phantom{000} \\ \hline \end{array}$

	Actual	Front-end	Rounding
<b>f</b>	$\begin{array}{r} 268 \\ + 172 \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ + \phantom{000} \\ \hline \end{array}$	$\begin{array}{r} \phantom{000} \\ + \phantom{000} \\ \hline \end{array}$





## Sheet 25 on Lessons 84 & 85

### Activity 1

**1**

Add each of the following by drawing using the place value mat:

**a**      72                      +                      18                      =                      \_\_\_\_\_

Tens	Ones

+

Tens	Ones

=

Tens	Ones

**b**      34                      +                      27                      =                      \_\_\_\_\_

Tens	Ones

+

Tens	Ones

=

Tens	Ones

### Activity 2

**2**

Add each of the following:

**a**    36 + 18 = \_\_\_\_\_

**b**    29 + 15 = \_\_\_\_\_

**c**    74 + 16 = \_\_\_\_\_

**d**    46 + 28 = \_\_\_\_\_

**e**    53 + 28 = \_\_\_\_\_

**f**    39 + 43 = \_\_\_\_\_

**g**

+	3	3
	4	9
<hr/>		

**h**

+	8	1
		9
<hr/>		

**i**

+	2	4
	1	8
<hr/>		

**j**

+	4	9
	3	9
<hr/>		

**k**

+	5	3
	8	1
<hr/>		

**l**

+	5	0
		6
<hr/>		

## Activity 1

Add each of the following by drawing using the place value mat:

**a**  $72 + 53 =$  \_\_\_\_\_

Tens	Ones		Tens	Ones		Hundreds	Tens	Ones
		+			=			

**b**  $58 + 51 =$  \_\_\_\_\_

Tens	Ones		Tens	Ones		Hundreds	Tens	Ones
		+			=			

## Activity 2

Add each of the following:

**a** 
$$\begin{array}{r} 81 \\ + 25 \\ \hline \end{array}$$

**b** 
$$\begin{array}{r} 67 \\ + 51 \\ \hline \end{array}$$

**c** 
$$\begin{array}{r} 90 \\ + 35 \\ \hline \end{array}$$

**d** 
$$\begin{array}{r} 73 \\ + 41 \\ \hline \end{array}$$

**e** 
$$\begin{array}{r} 61 \\ + 52 \\ \hline \end{array}$$

**f** 
$$\begin{array}{r} 70 \\ + 36 \\ \hline \end{array}$$

**g** 
$$\begin{array}{r} 89 \\ + 30 \\ \hline \end{array}$$

**h** 
$$\begin{array}{r} 66 \\ + 50 \\ \hline \end{array}$$



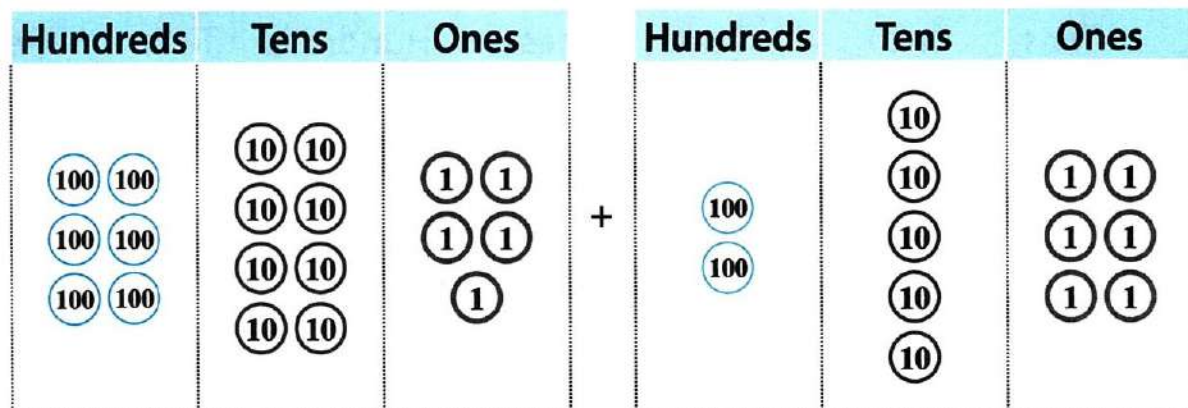


# Sheet 27 on Lesson 88

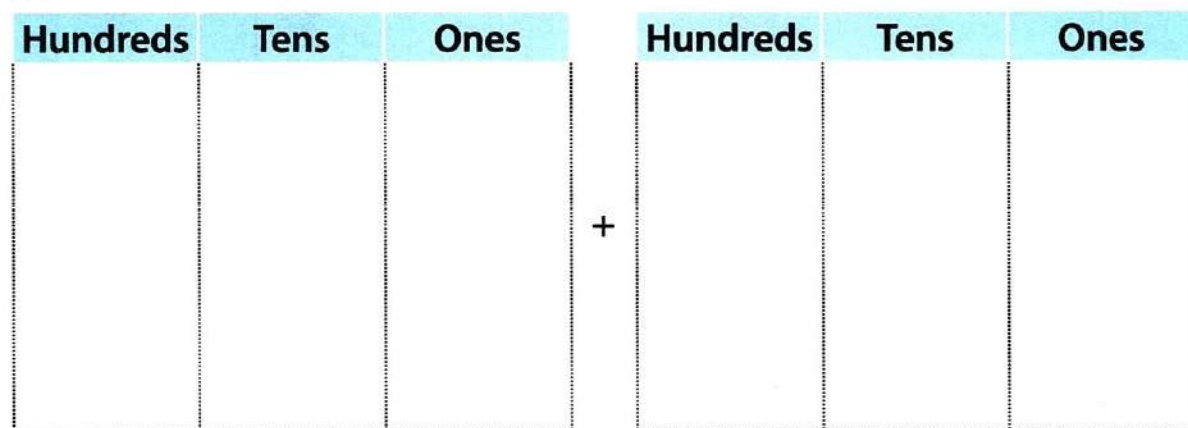
## Activity

Use 100, 10 and 1 on the place value mat to add the following problems:

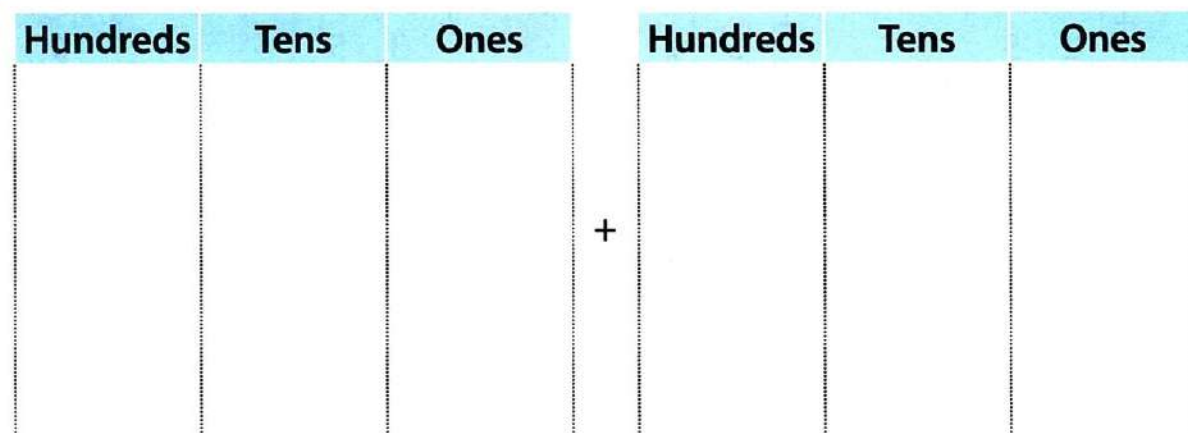
a  $685 + 256 =$  \_\_\_\_\_



b  $752 + 169 =$  \_\_\_\_\_



c  $389 + 78 =$  \_\_\_\_\_



## Activity 1 Solve the following problems:

a 
$$\begin{array}{r} 78 \\ + 25 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 64 \\ + 29 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 528 \\ + 193 \\ \hline \end{array}$$

d 
$$\begin{array}{r} 256 \\ + 175 \\ \hline \end{array}$$

e 
$$\begin{array}{r} 211 \\ + 699 \\ \hline \end{array}$$

f 
$$\begin{array}{r} 763 \\ + 198 \\ \hline \end{array}$$

g 
$$\begin{array}{r} 618 \\ + 294 \\ \hline \end{array}$$

h 
$$\begin{array}{r} 718 \\ + 194 \\ \hline \end{array}$$

## Activity 2 Find the result, then match:

a  $763 + 197 = \underline{\hspace{2cm}}$

$501$

b  $511 + 399 = \underline{\hspace{2cm}}$

$213$

c  $98 + 67 = \underline{\hspace{2cm}}$

$165$

d  $138 + 75 = \underline{\hspace{2cm}}$

$910$

e  $418 + 83 = \underline{\hspace{2cm}}$

$960$



# Sheet 29 on Lesson 90

## Activity 1

Check the result of each of the following using (✓) or (X), then correct if there is a mistake:

a Using front-end estimation

$$678 + 115 \text{ is } 700$$



b Rounding 690 up is 800

\_\_\_\_\_



c

$$\begin{array}{r} 583 \\ - 182 \\ \hline 761 \end{array}$$

\_\_\_\_\_



d The sum of 16 + 20

is an odd number

\_\_\_\_\_



e Round to estimate

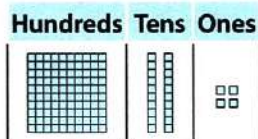
$$780 - 150 \text{ is } 500$$

\_\_\_\_\_



f

$$\begin{array}{r} 39 \\ + 85 \\ \hline 124 \end{array}$$



\_\_\_\_\_



## Activity 2

Complete to reach the answer:

a

$$\begin{array}{r} 6 \square 5 \\ + 174 \\ \hline 809 \end{array}$$

b

$$\begin{array}{r} 6 \square \\ - 18 \\ \hline 51 \end{array}$$

c

$$\begin{array}{r} 215 \\ + 31\square \\ \hline 530 \end{array}$$

d

$$\begin{array}{r} 728 \\ - \square 15 \\ \hline 313 \end{array}$$

e

$$\begin{array}{r} 136 \\ + \square 82 \\ \hline 518 \end{array}$$

f

$$\begin{array}{r} 45\square \\ - 213 \\ \hline 242 \end{array}$$

# Sheet 30 on Chapter 3

**Activity 1** Estimate, then write the actual sum or difference:

**a**

Actual	
78	
+	24
<hr/>	

Estimation
By front-end
<hr/>
By rounding
<hr/>

**b**

Actual	
98	
-	73
<hr/>	

Estimation
By front-end
<hr/>
By rounding
<hr/>

**c**

Actual		
365		
+	124	
<hr/>		

Estimation
By front-end
<hr/>
By rounding
<hr/>

**d**

Actual		
777		
-	555	
<hr/>		

Estimation
By front-end
<hr/>
By rounding
<hr/>

**Activity 2** Add each of the following using the place value mat:

**a**

73

+

45

=

Tens	Ones

+

Tens	Ones

=

Hundreds	Tens	Ones

**b**

638

+

174

=

Hundreds	Tens	Ones

+

Hundreds	Tens	Ones

=

Hundreds	Tens	Ones



**Activity 3 Add:**

**a**

$$\begin{array}{r} 273 \\ + \\ \hline 28 \\ \hline \end{array}$$

**b**

$$\begin{array}{r} 238 \\ + \\ \hline 194 \\ \hline \end{array}$$

**c**

$$\begin{array}{r} 606 \\ + \\ \hline 196 \\ \hline \end{array}$$

**d**

$$\begin{array}{r} 104 \\ + \\ \hline 509 \\ \hline \end{array}$$

**e**

$$\begin{array}{r} 239 \\ + \\ \hline 99 \\ \hline \end{array}$$

**f**

$$\begin{array}{r} 349 \\ + \\ \hline 57 \\ \hline \end{array}$$

**g**

$$\begin{array}{r} 167 \\ + \\ \hline 152 \\ \hline \end{array}$$

**h**

$$\begin{array}{r} 531 \\ + \\ \hline 10 \\ \hline \end{array}$$

**Activity 4 Choose the correct answer:**

**a** Round to estimate  $635 - 199$  is .....

400

700

500

**b** Using front-end to estimate  $325 + 156$  is .....

500

400

200

**c** Round to estimate  $198 + 76$  is .....

170

280

200

**d** The actual sum of  $674 + 183$  is .....

777

857

697

**e** The actual sum of  $237 + 56$  is .....

280

286

293

# Assess Your Progress

(1) I can apply front-end estimation strategy.

(2) I can round two 2-digit numbers to estimate their sum and their difference.

(3) I can add 2-digit numbers with regrouping.

(4) I can add two 3-digit numbers with regrouping.

(5) I can use the place value mat to regroup and add.

(6) I can round the 2-digit numbers to the nearest 10 and the 3-digit numbers to the nearest 100.

(7) I can detect errors and fix them.



Teacher's comment

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Points of strength: .....

Points to improve: .....





## Activity

1

Write the fact family for each group of the following numbers:



5 12 7

a

$$\begin{aligned} \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$



9 17 8

b

$$\begin{aligned} \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$



2 8 6

c

$$\begin{aligned} \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$



11 16 5

d

$$\begin{aligned} \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$



8 11 3

e

$$\begin{aligned} \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$



15 19 4

f

$$\begin{aligned} \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ + \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ - \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$

## Activity

2

Find the missing number in each fact family:

a

$$\begin{aligned} 25 - \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ + 15 &= 25 \\ 15 + \_\_\_\_\_ &= 25 \\ 25 - \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$

b

$$\begin{aligned} 18 - \_\_\_\_\_ &= 6 \\ \_\_\_\_\_ + 6 &= \_\_\_\_\_ \\ 18 - 6 &= \_\_\_\_\_ \\ 6 + \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$

c

$$\begin{aligned} 14 - \_\_\_\_\_ &= \_\_\_\_\_ \\ \_\_\_\_\_ + 5 &= 14 \\ 14 - 5 &= \_\_\_\_\_ \\ 5 + \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$

d

$$\begin{aligned} 16 - \_\_\_\_\_ &= 4 \\ \_\_\_\_\_ + 4 &= \_\_\_\_\_ \\ 16 - 4 &= \_\_\_\_\_ \\ 4 + \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$

e

$$\begin{aligned} 36 - \_\_\_\_\_ &= 19 \\ \_\_\_\_\_ + 19 &= 36 \\ 19 + \_\_\_\_\_ &= 36 \\ 36 - \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$

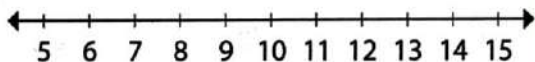
f

$$\begin{aligned} 30 - 13 &= \_\_\_\_\_ \\ \_\_\_\_\_ + 17 &= 30 \\ 17 + \_\_\_\_\_ &= \_\_\_\_\_ \\ 30 - \_\_\_\_\_ &= \_\_\_\_\_ \end{aligned}$$

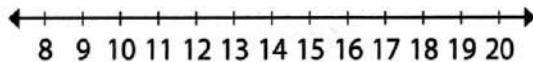
## Activity

Subtract using the number line:

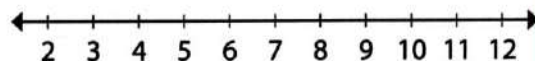
a  $13 - 7 = \underline{\hspace{2cm}}$



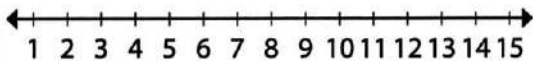
b  $20 - 8 = \underline{\hspace{2cm}}$



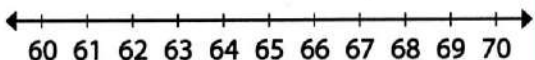
c  $10 - 4 = \underline{\hspace{2cm}}$



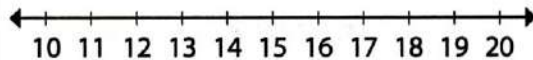
d  $12 - 9 = \underline{\hspace{2cm}}$



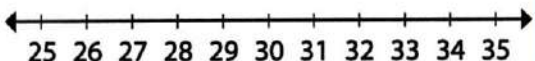
e  $65 - 4 = \underline{\hspace{2cm}}$



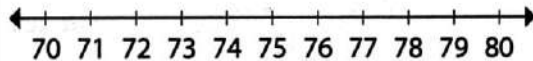
f  $18 - 7 = \underline{\hspace{2cm}}$



g  $33 - 5 = \underline{\hspace{2cm}}$



h  $78 - 6 = \underline{\hspace{2cm}}$





## Sheet 33 on Lesson 93

### Activity

Read, think, then solve:

- a** Rana spent L.E. 76 in the supermarket.

**How much money left with her if she had L.E. 99 in her wallet?**

The left money = .....  
= L.E. ....



- b** Ammar bought 28 cupcakes for his friends in the class. He found that 11 friends were present.

**How many cupcakes will be left with him?**

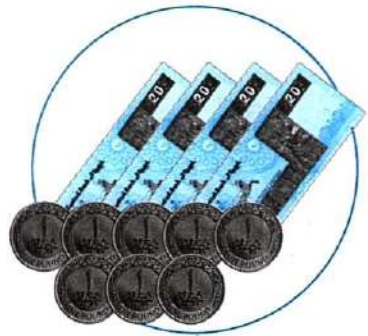
The left cupcakes = .....  
= ..... cupcakes



- c** Lojine had L.E. 88, then she lent her sister Noha L.E. 37.

**How much money will be left with her?**

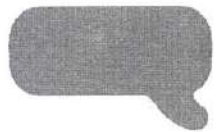
The left money = .....  
= L.E. ....



- d** Ahmed had 86 bananas, his friends ate 32 of them. **How many bananas left with Ahmed?**

The left bananas = .....  
= ..... bananas





**Activity 1** Decompose each of the following numbers by 2 different ways:

**a** **73**

\_\_\_\_\_ + \_\_\_\_\_

\_\_\_\_\_ + \_\_\_\_\_

**b** **66**

\_\_\_\_\_ + \_\_\_\_\_

\_\_\_\_\_ + \_\_\_\_\_

**c** **98**

\_\_\_\_\_ + \_\_\_\_\_

\_\_\_\_\_ + \_\_\_\_\_

**d** **45**

\_\_\_\_\_ + \_\_\_\_\_

\_\_\_\_\_ + \_\_\_\_\_

**e** **31**

\_\_\_\_\_ + \_\_\_\_\_

\_\_\_\_\_ + \_\_\_\_\_

**f** **29**

\_\_\_\_\_ + \_\_\_\_\_

\_\_\_\_\_ + \_\_\_\_\_

**Activity 2** Choose the correct decomposing that represents each number:

**a** ♦  $20 + 16$   
♦  $30 + 5$   
♦  $10 + 16$

**36**

**b** ♦  $50 + 6$   
♦  $60 + 10$   
♦  $60 + 16$

**76**

**c** ♦  $60 + 22$   
♦  $70 + 22$   
♦  $40 + 22$

**92**

**d** ♦  $30 + 39$   
♦  $20 + 29$   
♦  $20 + 39$

**59**

**e** ♦  $10 + 13$   
♦  $10 + 3$   
♦  $10 + 23$

**33**

**f** ♦  $20 + 28$   
♦  $20 + 18$   
♦  $30 + 10$

**48**

**g** ♦  $40 + 36$   
♦  $30 + 36$   
♦  $30 + 26$

**66**

**h** ♦  $30 + 32$   
♦  $30 + 12$   
♦  $40 + 12$

**52**

**i** ♦  $60 + 13$   
♦  $60 + 33$   
♦  $40 + 43$

**83**





## Sheet 35 on Lesson 95

Activity

Solve each cluster problem:

a  $52 - 10 = \underline{\hspace{2cm}}$

$52 - 20 = \underline{\hspace{2cm}}$

$52 - 30 = \underline{\hspace{2cm}}$

$52 - 32 = \underline{\hspace{2cm}}$

Then

$52 - 33 = \underline{\hspace{2cm}}$

b  $78 - 10 = \underline{\hspace{2cm}}$

$78 - 20 = \underline{\hspace{2cm}}$

$78 - 40 = \underline{\hspace{2cm}}$

$78 - 48 = \underline{\hspace{2cm}}$

Then

$78 - 50 = \underline{\hspace{2cm}}$

c  $128 - 10 = \underline{\hspace{2cm}}$

$128 - 20 = \underline{\hspace{2cm}}$

$128 - 30 = \underline{\hspace{2cm}}$

$128 - 100 = \underline{\hspace{2cm}}$

Then

$128 - 98 = \underline{\hspace{2cm}}$

d  $253 - 10 = \underline{\hspace{2cm}}$

$253 - 20 = \underline{\hspace{2cm}}$

$253 - 30 = \underline{\hspace{2cm}}$

$253 - 100 = \underline{\hspace{2cm}}$

Then

$253 - 99 = \underline{\hspace{2cm}}$

e  $95 - 10 = \underline{\hspace{2cm}}$

$95 - 20 = \underline{\hspace{2cm}}$

$95 - 30 = \underline{\hspace{2cm}}$

$95 - 43 = \underline{\hspace{2cm}}$

Then

$95 - 47 = \underline{\hspace{2cm}}$

f  $300 - 100 = \underline{\hspace{2cm}}$

$300 - 110 = \underline{\hspace{2cm}}$

$300 - 120 = \underline{\hspace{2cm}}$

$300 - 150 = \underline{\hspace{2cm}}$

Then

$300 - 160 = \underline{\hspace{2cm}}$

# Sheet 36 on Lesson 96

**Activity 1** Solve the following problems, then match:

**a**

$$\begin{array}{r} 52 \\ - 18 \\ \hline \end{array}$$

**b**

$$\begin{array}{r} 83 \\ - 25 \\ \hline \end{array}$$

**c**

$$\begin{array}{r} 60 \\ - 48 \\ \hline \end{array}$$

**1**

Tens	Ones

**2**

Tens	Ones

**3**

Tens	Ones

**Activity 2** Estimate the following problems using both rounding and front-end estimation, then find the actual result:

**a**  $53 - 46 =$  \_\_\_\_\_

Tens	Ones

Rounding

Front-end

**b**  $70 - 18 =$  \_\_\_\_\_

Tens	Ones

Rounding

Front-end

**c**  $63 - 47 =$  \_\_\_\_\_

Tens	Ones

Rounding

Front-end





## Sheet 37 on Lesson 97



**Estimate the following problems using rounding and front-end estimation, then find the actual result:**

**a**  $232 - 115 =$  \_\_\_\_\_

Hundreds	Tens	Ones

Rounding

Front-end

**b**  $160 - 137 =$  \_\_\_\_\_

Hundreds	Tens	Ones

Rounding

Front-end

**c**  $245 - 106 =$  \_\_\_\_\_

Hundreds	Tens	Ones

Rounding

Front-end

**d**  $350 - 238 =$  \_\_\_\_\_

Hundreds	Tens	Ones

Rounding

Front-end

## Activity

Solve the following problems, then choose the correct estimation:

a  $345 - 152 =$  \_\_\_\_\_

Hundreds	Tens	Ones

### Using rounding

- ✦  $300 - 100$  is 200
- ✦  $400 - 100$  is 300
- ✦  $300 - 200$  is 100

b  $533 - 201 =$  \_\_\_\_\_

Hundreds	Tens	Ones

### Using front-end

- ✦  $500 - 200$  is 300
- ✦  $500 - 300$  is 200
- ✦  $600 - 200$  is 400

c  $451 - 260 =$  \_\_\_\_\_

Hundreds	Tens	Ones

### Using rounding

- ✦  $500 - 200$  is 300
- ✦  $500 - 300$  is 200
- ✦  $400 - 200$  is 200

d  $304 - 182 =$  \_\_\_\_\_

Hundreds	Tens	Ones

### Using front-end

- ✦  $300 - 200$  is 100
- ✦  $300 - 100$  is 200
- ✦  $400 - 100$  is 300





# Sheet 39 on Lesson 99

**Activity 1** Solve the following problems:

a 
$$\begin{array}{r} 65 \\ - 38 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 58 \\ - 49 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 72 \\ - 36 \\ \hline \end{array}$$

d 
$$\begin{array}{r} 54 \\ - 38 \\ \hline \end{array}$$


e 
$$\begin{array}{r} 82 \\ - 49 \\ \hline \end{array}$$


f 
$$\begin{array}{r} 37 \\ - 18 \\ \hline \end{array}$$


g 
$$\begin{array}{r} 63 \\ - 25 \\ \hline \end{array}$$


h 
$$\begin{array}{r} 75 \\ - 37 \\ \hline \end{array}$$

**Activity 2** Solve, then match the equal results:

a 
$$\begin{array}{r} 75 \\ - 26 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 64 \\ - 37 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 53 \\ - 18 \\ \hline \end{array}$$

d 
$$\begin{array}{r} 82 \\ - 48 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ - 37 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ - 28 \\ \hline \end{array}$$

**Activity 3** Complete:

a 
$$\begin{array}{r} 29 \\ - 1 \dots \\ \hline 13 \end{array}$$

b 
$$\begin{array}{r} \dots 6 \\ - 4 \dots \\ \hline 32 \end{array}$$

c 
$$\begin{array}{r} 78 \\ - \dots \dots \\ \hline 30 \end{array}$$

d 
$$\begin{array}{r} 5 \dots \\ - \dots 6 \\ \hline 13 \end{array}$$

## Activity 1 Solve the following problems:

a 
$$\begin{array}{r} 325 \\ - 143 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 703 \\ - 452 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 168 \\ - 139 \\ \hline \end{array}$$

d 
$$\begin{array}{r} 530 \\ - 126 \\ \hline \end{array}$$

e 
$$\begin{array}{r} 567 \\ - 238 \\ \hline \end{array}$$

f 
$$\begin{array}{r} 613 \\ - 480 \\ \hline \end{array}$$

g 
$$\begin{array}{r} 501 \\ - 370 \\ \hline \end{array}$$

h 
$$\begin{array}{r} 632 \\ - 151 \\ \hline \end{array}$$

## Activity 2 Solve, then choose the correct answer:

a  $380 - 126 =$  .....

- ✦ 254
- ✦ 266
- ✦ 260

b  $571 - 80 =$  .....

- ✦ 511
- ✦ 455
- ✦ 491

c  $743 - 592 =$  .....

- ✦ 355
- ✦ 251
- ✦ 151

d  $604 - 182 =$  .....

- ✦ 422
- ✦ 420
- ✦ 582

e  $991 - 395 =$  .....

- ✦ 932
- ✦ 504
- ✦ 596

f  $717 - 208 =$  .....

- ✦ 509
- ✦ 313
- ✦ 501



# Sheet 41 on Chapter 4

## Activity 1 Complete:

a  $10 - 6 = \underline{\quad}$   
 $\underline{\quad} + 6 = 10$   
 $6 + \underline{\quad} = 10$   
 $10 - \underline{\quad} = 6$

b  $336 - 10 = \underline{\quad}$   
 $336 - 20 = \underline{\quad}$   
 $336 - 30 = \underline{\quad}$   
 $336 - 40 = \underline{\quad}$   
then  $336 - 99 = \underline{\quad}$

c  $56 - 8 = \underline{\quad}$   
 $\underline{\quad} + 8 = 56$   
 $8 + \underline{\quad} = 56$   
 $56 - \underline{\quad} = 8$

## Activity 2 Read, think, then solve:

- a Rasha has 177 marbles, her sister Mona has 150 marbles.  
How many more marbles does Rasha have than Mona?

.....  
.....

- b The number of pupils in a school is 654. If the number of girls is 250,  
how many boys are there in this school?

.....  
.....

## Activity 3 Subtract, then match:

a 
$$\begin{array}{r} 407 \\ - 257 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 659 \\ - 275 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 592 \\ - 284 \\ \hline \end{array}$$

384

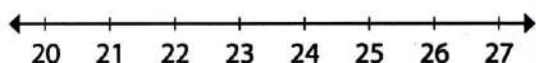
308

150

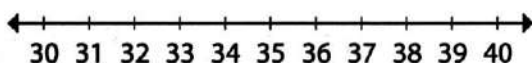
**Activity**
**4**

Use the number line to find the answer of the following problems:

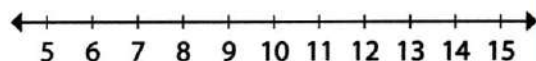
**a**  $25 - \underline{\hspace{2cm}} = 20$



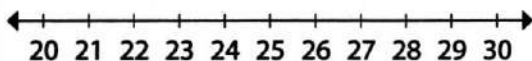
**b**  $37 - \underline{\hspace{2cm}} = 31$



**c**  $14 - \underline{\hspace{2cm}} = 9$



**d**  $30 - \underline{\hspace{2cm}} = 22$


**Activity**
**5**

Estimate the following problems using rounding and front-end estimation, then find the actual result:

**a**  $782 - 145 = \underline{\hspace{2cm}}$

Hundreds	Tens	Ones

Rounding

Front-end

**b**  $304 - 182 = \underline{\hspace{2cm}}$

Hundreds	Tens	Ones

Rounding

Front-end



# Assess Your Progress

(1) I can create addition and subtraction sentences using fact families.

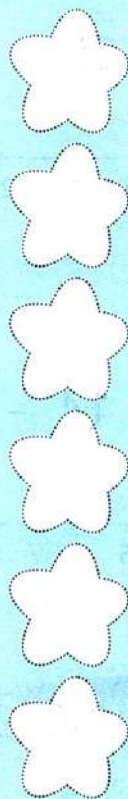
(2) I can explain the relationship between addition and subtraction.

(3) I can use the number line to subtract 2 numbers.

(4) I can subtract 2 and 3-digit numbers with and without regrouping.

(5) I can apply mental math strategies to subtract by tens and hundreds.

(6) I can apply mental math strategies to estimate the difference between 2 numbers.



## Teacher's comment



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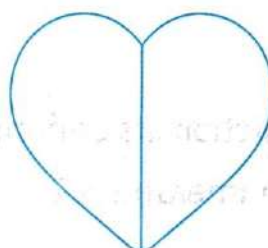
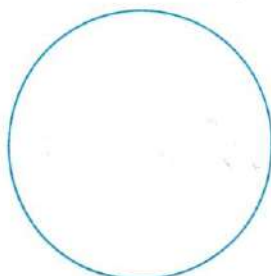
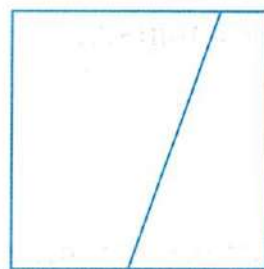
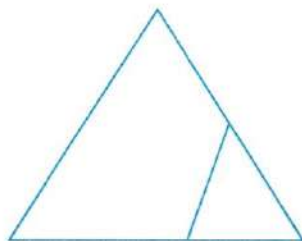
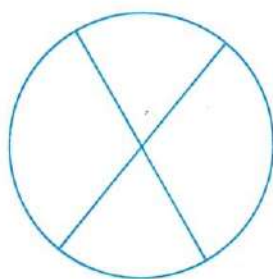
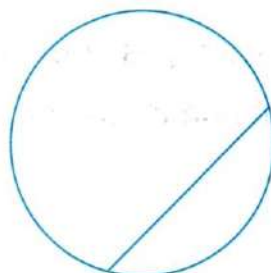
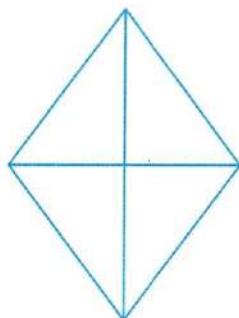
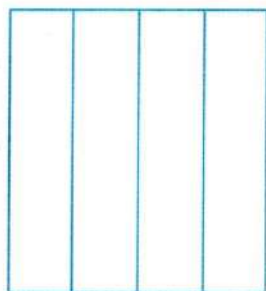
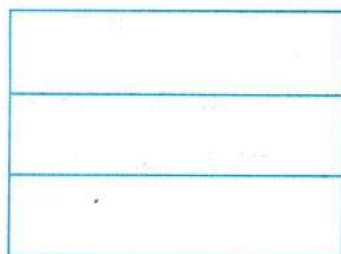
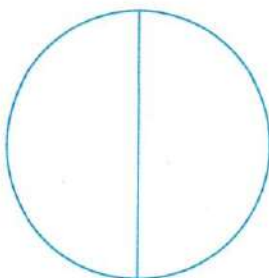
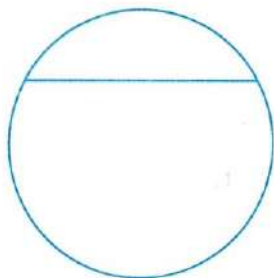
Points of strength: \_\_\_\_\_

Points to improve: \_\_\_\_\_



## Activity

Color the shape that is divided into equal parts in blue and the shape that is divided into unequal parts in red:





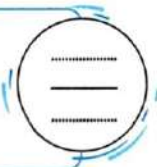


## Sheet 43 on Lesson 102

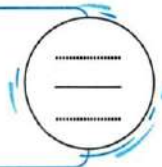
### Activity

**1****Read, then build the required fraction:**

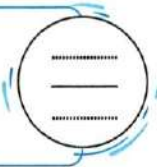
- a** My numerator is 4,  
my denominator is 6



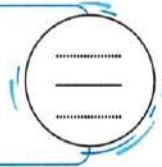
- b** My denominator is 5,  
my numerator is 2



- c** My denominator is 8,  
my numerator is 1



- d** My numerator is 3,  
my denominator is 7

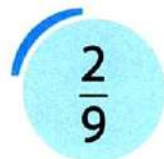


### Activity

**2****Read, then match:**

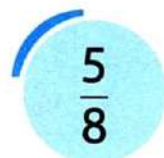
- a** A fraction, its numerator is 5,  
its denominator is 8

•


$$\frac{2}{9}$$

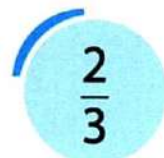
- b** A fraction, its numerator is 2,  
its denominator is 3

•


$$\frac{5}{8}$$

- c** A fraction, its numerator is 4,  
its denominator is 8

•


$$\frac{2}{3}$$

- d** A fraction, its denominator is 9,  
its numerator is 2

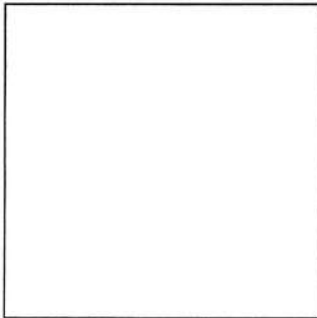
•


$$\frac{4}{8}$$

## Activity 1

Draw lines to divide each shape to get the shown fraction, then color and write its name:

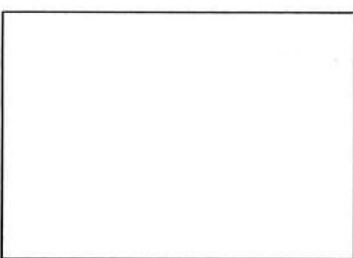
**a**



$\frac{1}{3}$

\_\_\_\_\_

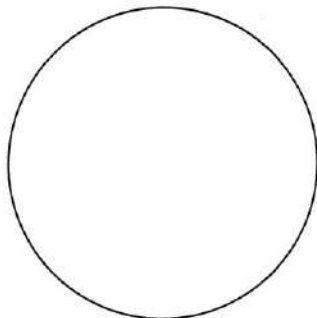
**b**



$\frac{1}{4}$

\_\_\_\_\_

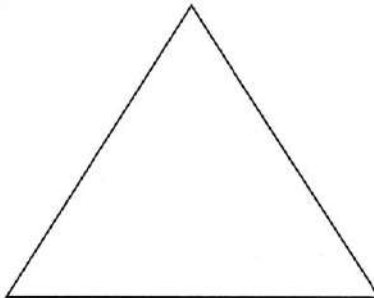
**c**



$\frac{1}{4}$

\_\_\_\_\_

**d**



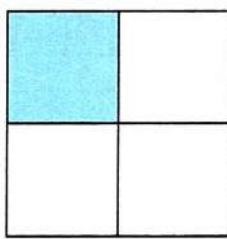
$\frac{1}{2}$

\_\_\_\_\_

## Activity 2

Write the fraction that represents the shaded part:

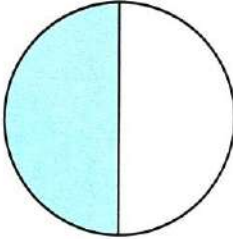
**a**



\_\_\_\_\_

Read as \_\_\_\_\_

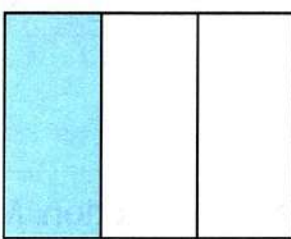
**b**



\_\_\_\_\_

Read as \_\_\_\_\_

**c**



\_\_\_\_\_

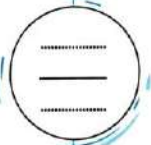
Read as \_\_\_\_\_



## Activity

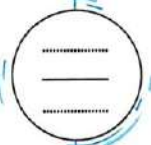
Find, then match:

**a** I'm a fraction. My numerator is 1 and my denominator is 3.



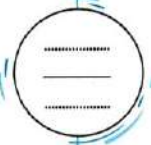
read as: .....

**b** I'm a fraction. My numerator is 3 and my denominator is 4.



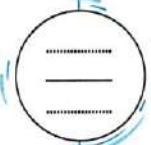
read as: .....

**c** I'm a fraction. My numerator is 1 and my denominator is 2.



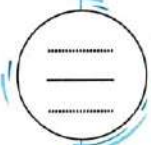
read as: .....

**d** I'm a fraction. My numerator is 3 and my denominator is 3.

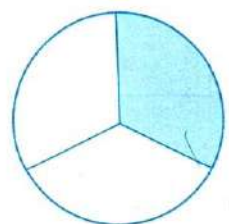
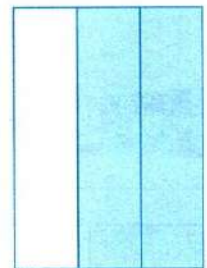
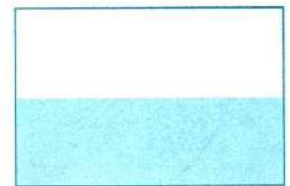
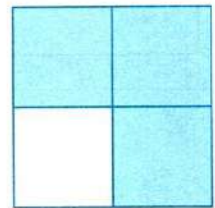
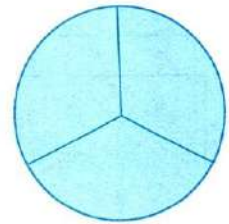


read as: .....

**e** I'm a fraction. My numerator is 2 and my denominator is 3.

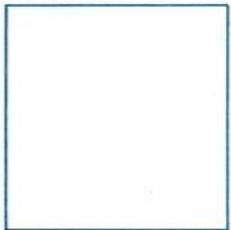
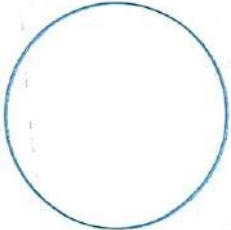
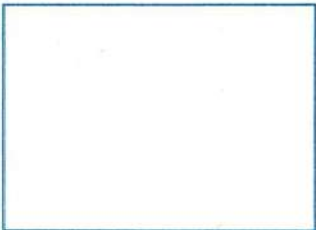

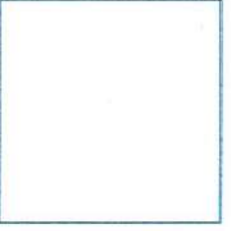
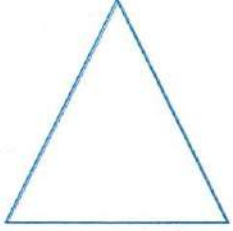


read as: .....

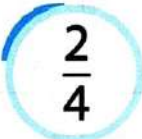


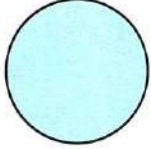

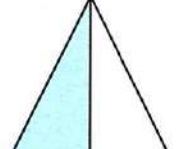

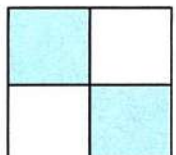




## Activity 1 Divide, then color to represent each fraction:

<p><b>a</b></p>  <p>Three thirds</p>	<p><b>b</b></p>  <p>Two quarters</p>	<p><b>c</b></p>  <p>Two halves</p>
<p><b>d</b></p>  <p>One half</p>	<p><b>e</b></p>  <p>Four quarters</p>	<p><b>f</b></p>  <p>One whole</p>

## Activity 2 Match:

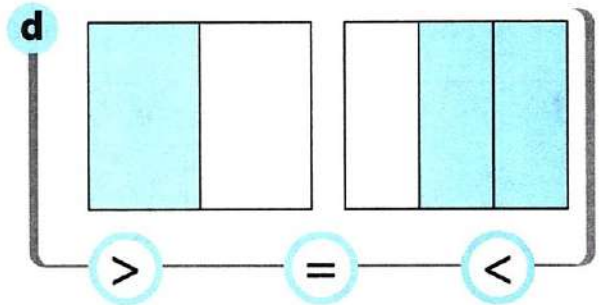
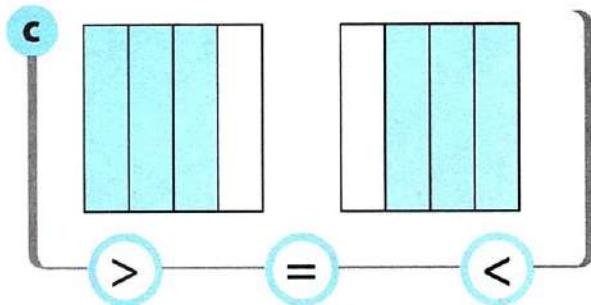
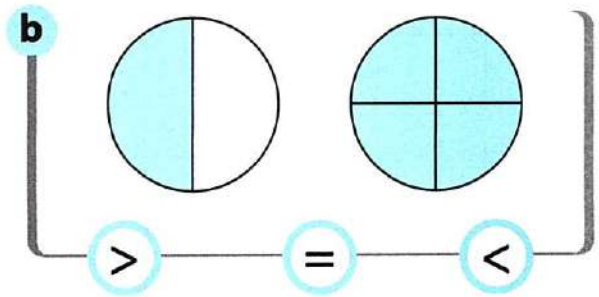
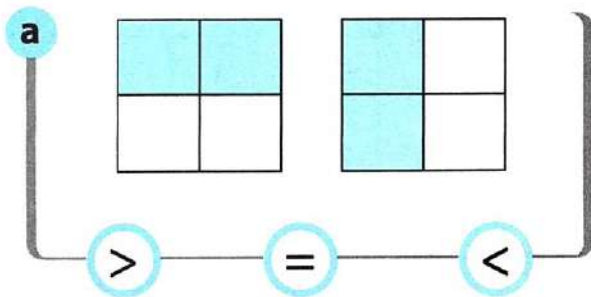
<p><b>a</b></p> 		<p>• One whole</p>
<p><b>b</b></p> 		<p>• One half</p>
<p><b>c</b></p> 		<p>• Two quarters</p>
<p><b>d</b></p> 		<p>• Three thirds</p>



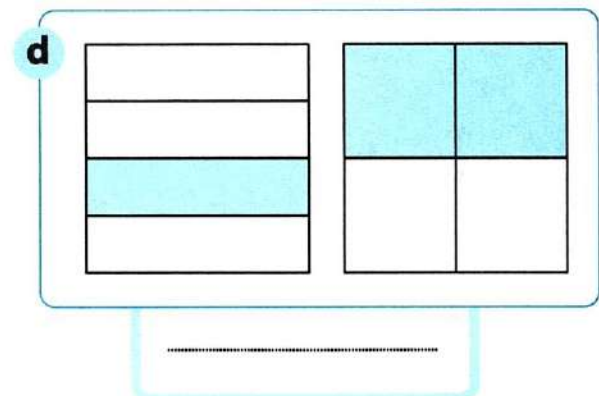
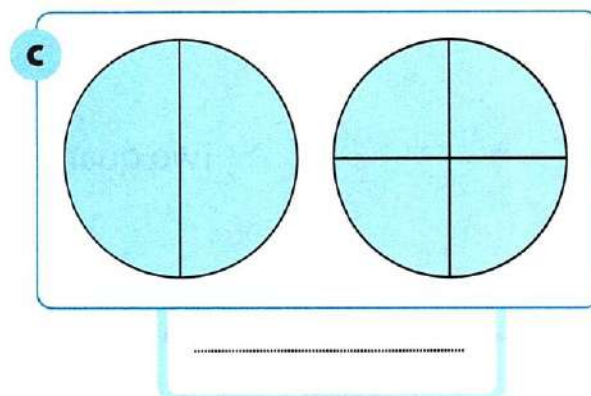
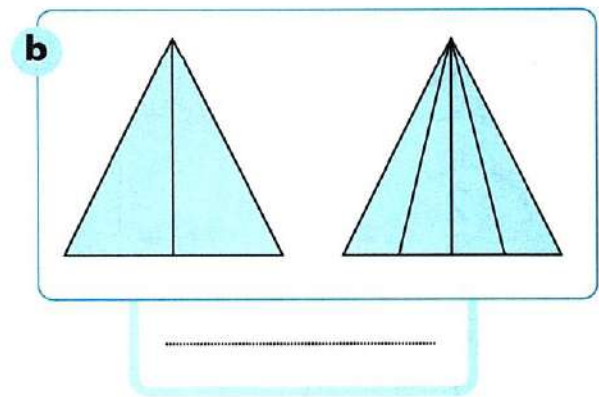
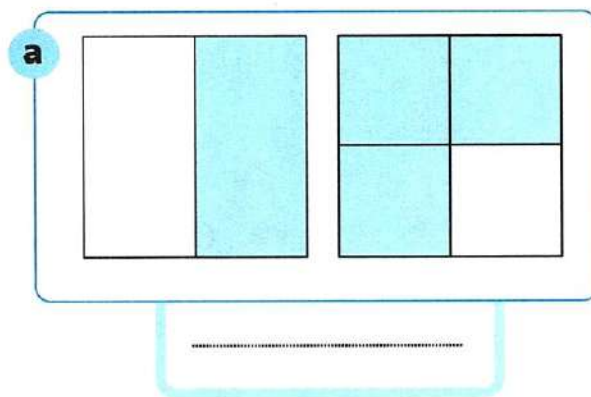


# Sheet 47 on Lesson 106

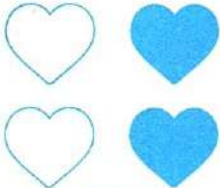
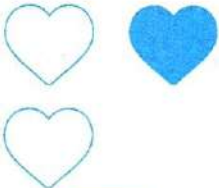




**Activity 1** Notice the shaded parts, then color the correct sign:




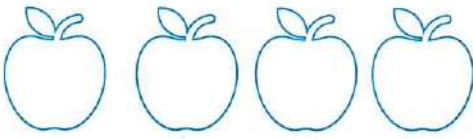
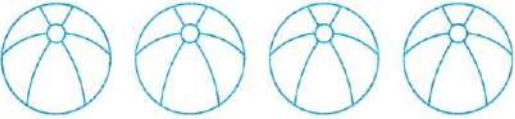

**Activity 2** Notice the shaded parts, then write **same** or **different**:



## Activity 1 Write the fraction of colored objects in each group:

<p><b>a</b></p>  <div data-bbox="244 526 329 642" style="border: 1px solid black; padding: 5px; margin-top: 10px;">             _____              _____              _____           </div>	<p><b>b</b></p>  <div data-bbox="672 526 756 642" style="border: 1px solid black; padding: 5px; margin-top: 10px;">             _____              _____              _____           </div>	<p><b>c</b></p>  <div data-bbox="1099 526 1183 642" style="border: 1px solid black; padding: 5px; margin-top: 10px;">             _____              _____              _____           </div>
<p><b>d</b></p>  <div data-bbox="244 894 329 1007" style="border: 1px solid black; padding: 5px; margin-top: 10px;">             _____              _____              _____           </div>	<p><b>e</b></p>  <div data-bbox="672 894 756 1007" style="border: 1px solid black; padding: 5px; margin-top: 10px;">             _____              _____              _____           </div>	<p><b>f</b></p>  <div data-bbox="1099 894 1183 1007" style="border: 1px solid black; padding: 5px; margin-top: 10px;">             _____              _____              _____           </div>

## Activity 2 Color to show the fraction:

<p><b>a</b></p>  <div data-bbox="161 1401 595 1491" style="background-color: #e0f7fa; padding: 10px; margin-top: 10px;"> <math>\frac{1}{3}</math> of flowers are red         </div>	<p><b>b</b></p>  <div data-bbox="826 1401 1260 1491" style="background-color: #e0f7fa; padding: 10px; margin-top: 10px;"> <math>\frac{3}{4}</math> of apples are yellow         </div>
<p><b>c</b></p>  <div data-bbox="161 1779 595 1856" style="background-color: #e0f7fa; padding: 10px; margin-top: 10px;"> <math>\frac{2}{4}</math> of balls are green         </div>	<p><b>d</b></p>  <div data-bbox="826 1779 1260 1856" style="background-color: #e0f7fa; padding: 10px; margin-top: 10px;"> <math>\frac{1}{2}</math> of bananas are yellow         </div>



# Sheet 49 on Lessons 109 & 110

## Activity 1 Read, think, then solve:

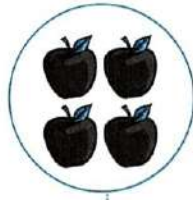
- a** There are 3 chocolate bars in the box and Perry ate 2 of them. **What is the fraction that represents the left chocolate bars?**



- b** Hussien has 4 apples. He gave 2 of them to his brother Hassan, **what is the fraction that represents the left apples with Hussien?**



- c** There were 4 crayons with Laila in her bag, 3 of them were blue, **what is the fraction that represents the crayons that aren't blue?**



- d** Sara bought one orange, two strawberries and one pear. **What is the fraction that represents the fruits that aren't strawberries?**



## Activity 2 Read, then color the correct answer:

- a** Rawan had 4 cupcakes. She gave 1 to her sister. What is the fraction that represents the cupcakes which are left with Rawan?

$\frac{1}{4}$

$\frac{2}{4}$

$\frac{3}{4}$

- b** Mohamed had 3 scoops of ice cream, two of them are vanilla, what is the fraction that represents the scoops that aren't vanilla?

$\frac{1}{3}$

$\frac{2}{3}$

$\frac{3}{3}$



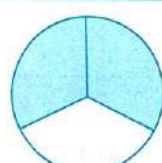
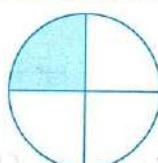
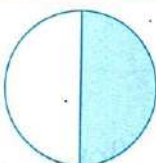
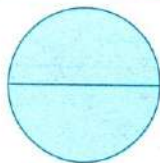
## Activity

1

Circle the shapes that represent the shown fraction in each of the following:

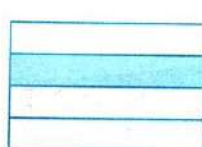
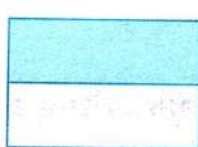
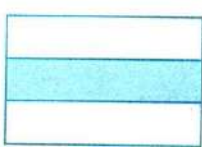
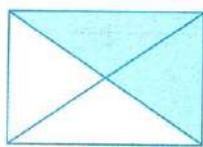
a

$$\frac{2}{3}$$



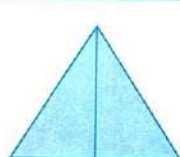
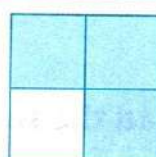
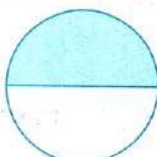
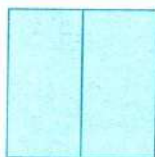
b

$$\frac{1}{4}$$



c

$$\frac{2}{2}$$



## Activity

2

Read, then color the correct fraction:

a

A fraction, its numerator is 1 and its denominator is 4

$$\frac{1}{2}$$

$$\frac{1}{4}$$

$$\frac{1}{3}$$

b

A fraction, its numerator is 2 and its denominator is 4

$$\frac{2}{3}$$

$$\frac{1}{4}$$

$$\frac{2}{4}$$

c

A fraction, its numerator is 2 and its denominator is 3

$$\frac{1}{3}$$

$$\frac{2}{3}$$

$$\frac{3}{3}$$

d

A fraction, its numerator is 1 and its denominator is 3

$$\frac{1}{2}$$

$$\frac{2}{3}$$

$$\frac{1}{3}$$



**Activity 3 Notice, then answer:**

**a** ♦ What fraction shows small balls?


♦ What fraction shows big balls?

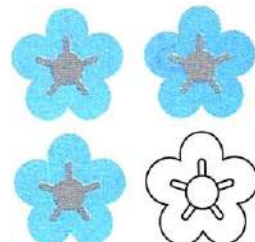


**b** ♦ What fraction shows colored flowers?


♦ What fraction shows uncolored flowers?



**Activity 4 Read, then answer:**

Aser has a pizza cut into 4 equal parts, he gave his sister 2 parts.

What is the fraction that represents the left parts?


**Activity 5 Read the following fractions:**

**a**

$$\frac{1}{3}$$

read as: \_\_\_\_\_

**b**

$$\frac{2}{4}$$

read as: \_\_\_\_\_

**c**

$$\frac{1}{2}$$

read as: \_\_\_\_\_

**d**

$$\frac{3}{4}$$

read as: \_\_\_\_\_

**e**

$$\frac{2}{2}$$

read as: \_\_\_\_\_

**f**

$$\frac{4}{4}$$

read as: \_\_\_\_\_

# Assess Your Progress

(1) I can identify equal and unequal parts of a whole.

(2) I can create halves, thirds and fourths.

(3) I can investigate fractions with a numerator greater than 1.

(4) I can identify and write fractional parts of a set.

(5) I can solve story problems involving fractions.



Teacher's comment



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Points of strength: \_\_\_\_\_

Points to improve: \_\_\_\_\_

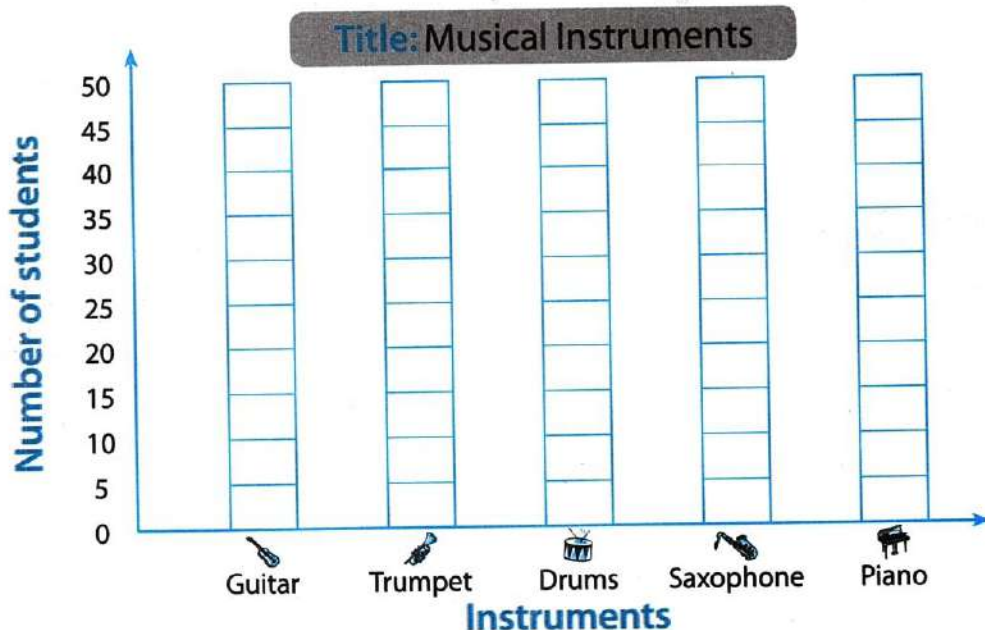



**Activity 1 Read, then answer:**

The following pictograph shows the number of students who like each musical instrument. Use these data to form a bar graph:

<b>Guitar</b>		
<b>Trumpet</b>		
<b>Drums</b>		
<b>Saxophone</b>		
<b>Piano</b>		

**Key:** each represents 10 students  
each represents 5 students


**Activity 2 Solve the following questions:**

- Which instrument is liked the most? .....
- How many students liked more than ? .....
- How many students liked more than ? .....

# Sheet 52 on Lesson 113

## Activity

Read, then answer:

Use the following data to form a pictograph and a bar graph about favorite snacks for some children:

Title: .....

Hazelnut	
Almond	
Peanut	
Pistachio	

Key: .....

Almond



8 children

Hazelnut



10 children

Pistachio



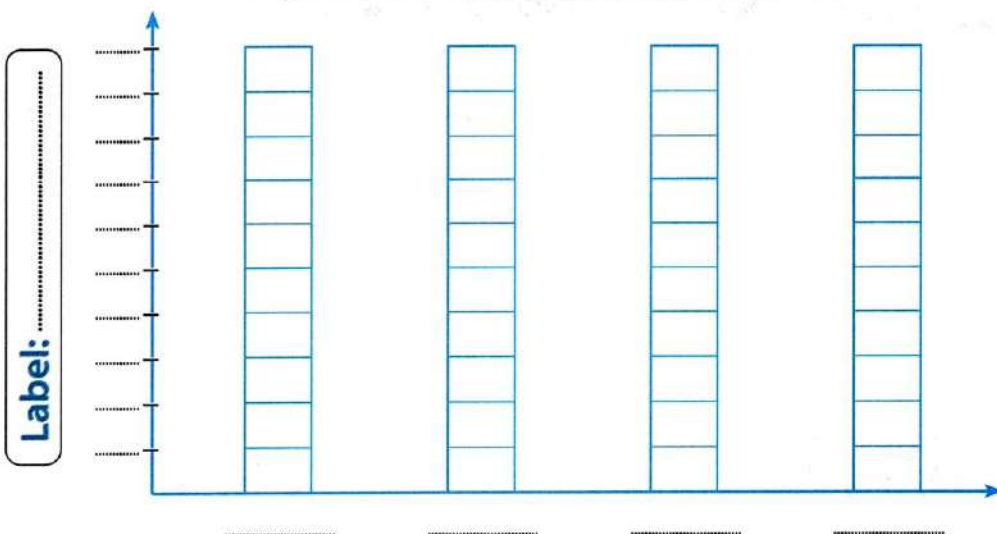
10 children

Peanut



14 children

Title: .....



Label: .....

- Which snack is liked the most? .....
- Which snack is liked the least? .....



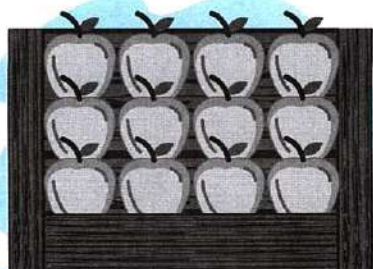
# Sheet 53 on Lessons 114 & 115

Activity

1

Write the name of each array and express it using addition sentence:

a



Array is called

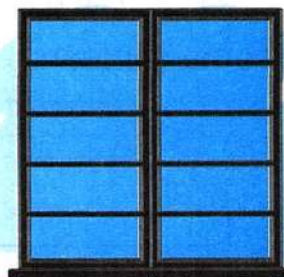
\_\_\_\_\_ by \_\_\_\_\_

Addition sentence:

◆ \_\_\_\_\_ = \_\_\_\_\_

◆ \_\_\_\_\_ = \_\_\_\_\_

b



Array is called

\_\_\_\_\_ by \_\_\_\_\_

Addition sentence:

◆ \_\_\_\_\_ = \_\_\_\_\_

◆ \_\_\_\_\_ = \_\_\_\_\_

Activity

2

Draw each array according to its name, then complete:

a

3 by 5

Rows

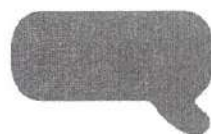
Columns

b

4 by 6

Rows

Columns



**Activity 1** Solve the following problems using the place value mat:

**a**

$$\begin{array}{r} 79 \\ + 23 \\ \hline \end{array}$$

Hundreds	Tens	Ones

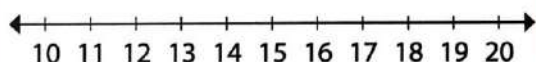
**b**

$$\begin{array}{r} 56 \\ + 53 \\ \hline \end{array}$$

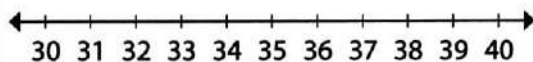
Hundreds	Tens	Ones

**Activity 2** Solve the following problems using the number line:

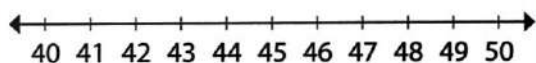
**a**  $13 + 5 = \underline{\hspace{2cm}}$



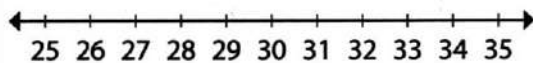
**b**  $32 + 4 = \underline{\hspace{2cm}}$



**c**  $47 + 2 = \underline{\hspace{2cm}}$



**d**  $29 + 3 = \underline{\hspace{2cm}}$



**Activity 3** Solve the following problems:

**a**

$$\begin{array}{r} 218 \\ + 164 \\ \hline \end{array}$$

**b**

$$\begin{array}{r} 734 \\ + 156 \\ \hline \end{array}$$

**c**

$$\begin{array}{r} 118 \\ + 29 \\ \hline \end{array}$$

**d**

$$\begin{array}{r} 308 \\ + 294 \\ \hline \end{array}$$

**e**

$$\begin{array}{r} 365 \\ + 143 \\ \hline \end{array}$$

**f**

$$\begin{array}{r} 684 \\ + 23 \\ \hline \end{array}$$

**g**

$$\begin{array}{r} 340 \\ + 168 \\ \hline \end{array}$$

**h**

$$\begin{array}{r} 234 \\ + 363 \\ \hline \end{array}$$





## Sheet 55 on Lesson 117

### Activity

Read, think, then solve:

- a** Sara's mother made 14 cookies on Sunday, on Monday she made 27 cookies. **How many cookies did she make during the 2 days?**

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- b** In a fish tank there are 110 small fish and 94 large fish. **How many fish are there in the tank?**

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- c** There are 328 goats walking over the bridge, 76 more joined them. **How many goats are over the bridge in all?**

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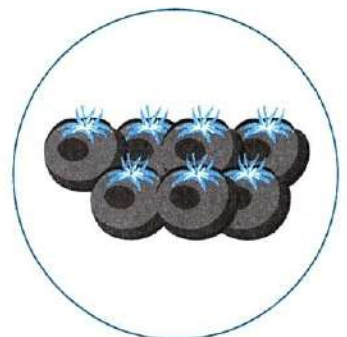
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- d** Rahim picked 625 tomatoes from the trees, Farid picked 206 tomatoes. **How many tomatoes did they both pick?**

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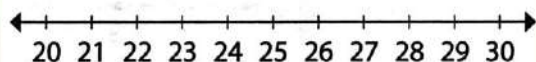
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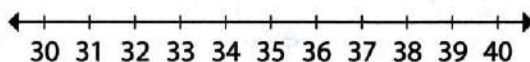


**Activity 1** Solve the following problems using the number line:

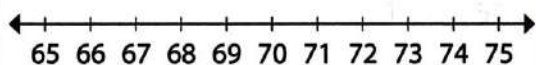
**a**  $25 - 4 = \underline{\hspace{2cm}}$



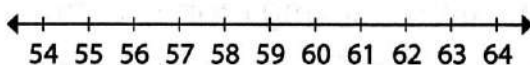
**b**  $36 - 2 = \underline{\hspace{2cm}}$



**c**  $74 - 6 = \underline{\hspace{2cm}}$



**d**  $59 - 5 = \underline{\hspace{2cm}}$



**Activity 2** Solve the following problems using the place value mat:

**a** 
$$\begin{array}{r} 56 \\ - 38 \\ \hline \end{array}$$

Tens	Ones

**b** 
$$\begin{array}{r} 72 \\ - 49 \\ \hline \end{array}$$

Tens	Ones

**Activity 3** Solve the following problems:

**a** 
$$\begin{array}{r} 318 \\ - 143 \\ \hline \end{array}$$

**b** 
$$\begin{array}{r} 256 \\ - 37 \\ \hline \end{array}$$

**c** 
$$\begin{array}{r} 616 \\ - 234 \\ \hline \end{array}$$

**d** 
$$\begin{array}{r} 784 \\ - 236 \\ \hline \end{array}$$

**e** 
$$\begin{array}{r} 510 \\ - 309 \\ \hline \end{array}$$

**f** 
$$\begin{array}{r} 634 \\ - 251 \\ \hline \end{array}$$

**g** 
$$\begin{array}{r} 700 \\ - 190 \\ \hline \end{array}$$

**h** 
$$\begin{array}{r} 354 \\ - 108 \\ \hline \end{array}$$



## Activity

Read, think, then solve:

- a** There are twenty six players in Blue team and seventeen players in the Orange team.  
**What is the difference between the numbers of players in two teams?**



- b** Selim is saving money to buy a guitar that costs L.E. 190. If he already saved L.E. 135, **how much more money does he need to buy the guitar?**



- c** Captain Yassin is a pilot. If he flies 320 miles on Thursday and 550 miles on Friday.  
**How many more miles did he fly on Friday than Thursday?**



- d** Farida bought a book which has 280 pages, if she has read 75 pages of the book, **how many pages left for her to read?**



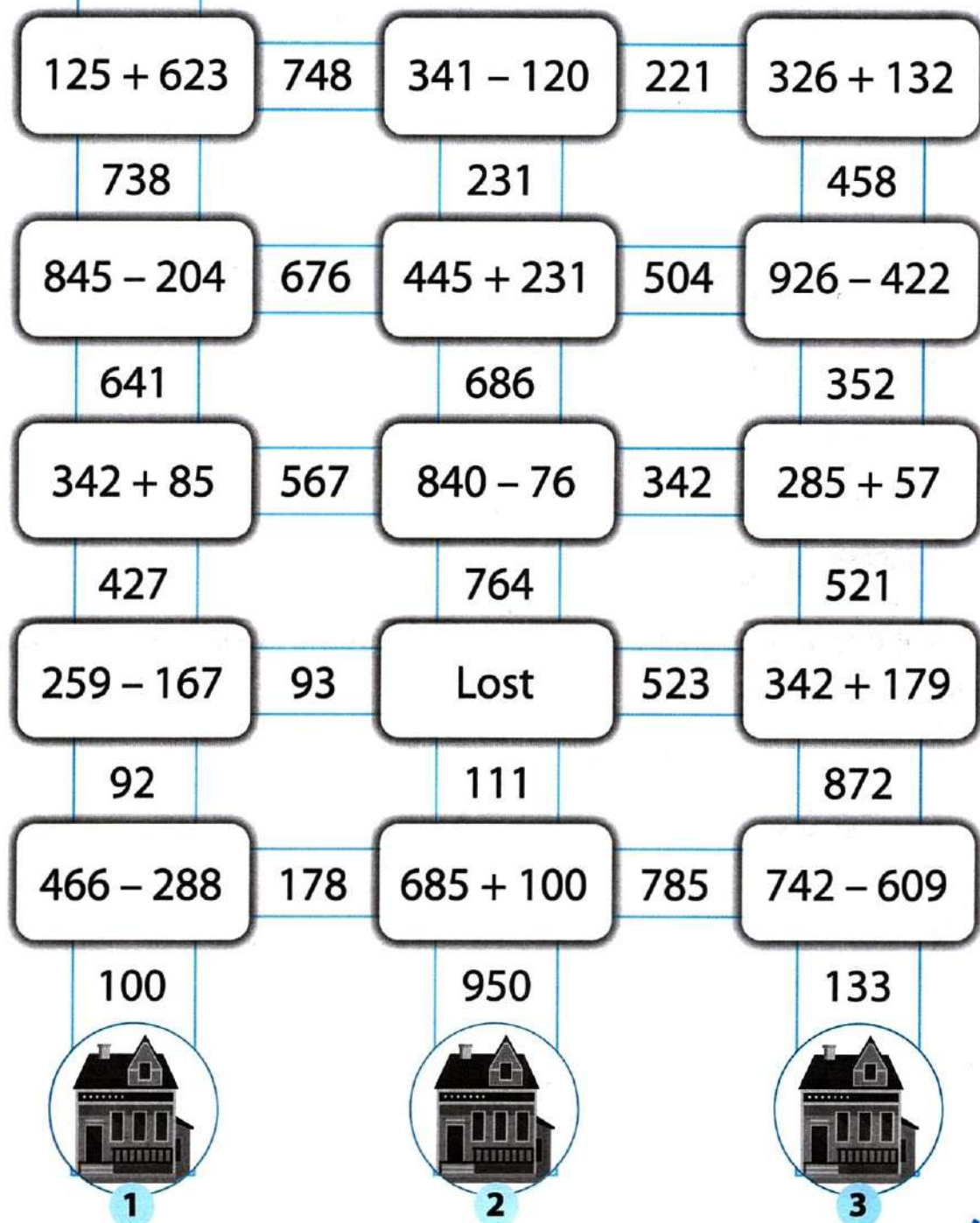


## Activity

Solve, then color the result to choose the correct route through the maze to help Ammar reach his home:



Start



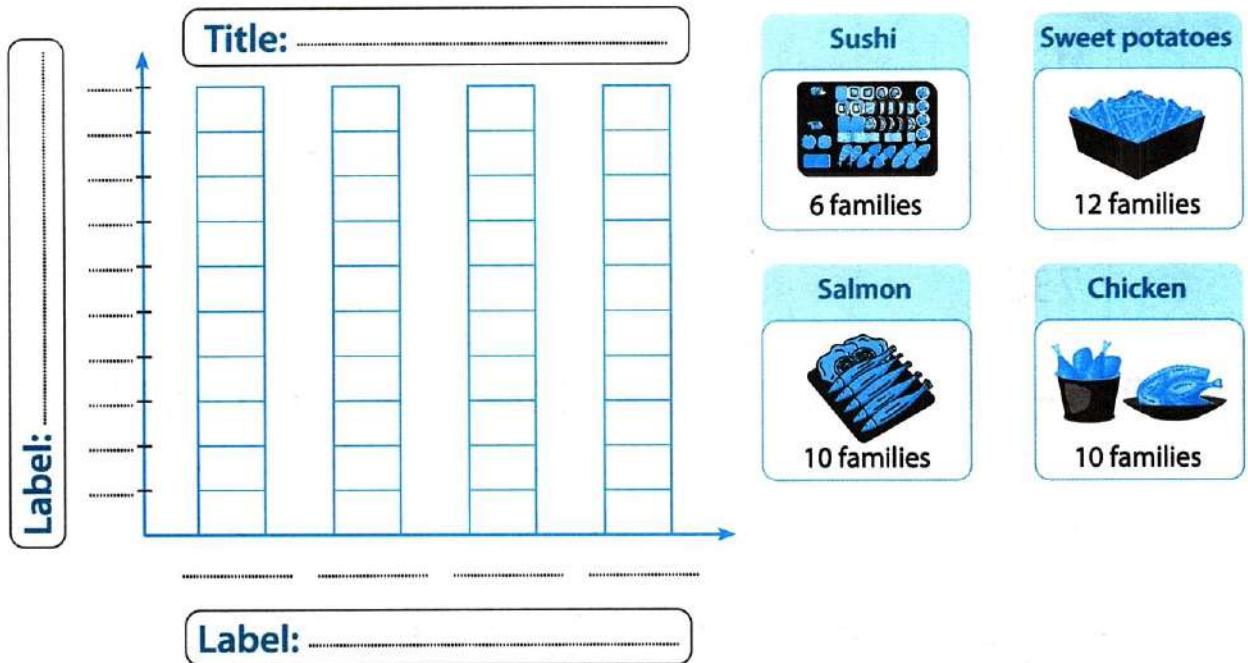




# Sheet 59 on Chapter 6

## Activity 1 Read, then solve:

Use the given data to create a bar graph about the favorite food for some families:



## Activity 2 Read, then answer:

Use the above data to create a pictograph about the favorite food for some families:

**Title:** \_\_\_\_\_

Sushi	
Sweet potatoes	
Salmon	
Chicken	

**Key:** \_\_\_\_\_

**Activity**
**3**
**Choose the correct answer:**

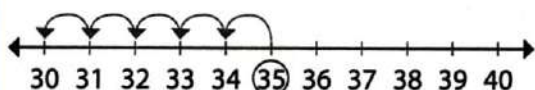
- a** The parrot has 25 red feathers, it has also 16 green feathers. How many colored feathers does it have in all?

◆ 31     ◆ 9     ◆ 41

- b** Rahma has 105 marbles, Laila gave Rahma some more marbles so, now she has 200 in all. How many marbles did Laila give Rahma?

◆ 95     ◆ 305     ◆ 105

- c** Which sentence is represented by the following number line?



◆  $35 + 5$      ◆  $35 - 5$   
◆  $30 + 4$

- d** The addition sentence which represents the following array is .....



◆  $2 + 2 + 2 + 2$      ◆  $5 + 5 + 5$   
◆  $5 + 5$

**Activity**
**4**
**Draw to complete creating each of the following arrays:**
**a**


4 by 6

**b**


5 by 2

**c**


2 by 4



# Assess Your Progress

(1) I can interpret data in bar graph with a scale of (5) or (10).

(2) I can interpret data in pictographs with a scale of (2) or (5).

(3) I can organize data on bar graph and solve problems using these data.

(4) I can identify and create arrays with given rows and columns.

(5) I can solve story problems for addition and subtraction equations using different strategies.

(6) I can write repeated addition sentences to express the total number of objects in an array.



## Teacher's comment



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Points of strength: .....

Points to improve: .....

# Final Assessment

## Part 2



○ 10 Final Sheets on the 2<sup>nd</sup> Term



## 1 Write the value of each banknote:

a



L.E. ....

b



L.E. ....

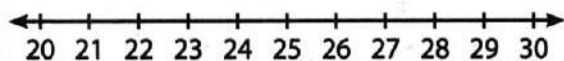
c



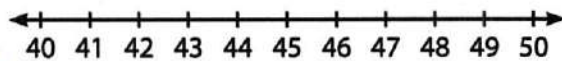
L.E. ....

## 2 Add or subtract using the number line:

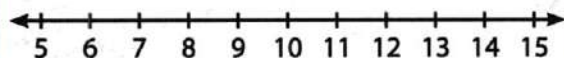
a  $25 + 5 =$  .....



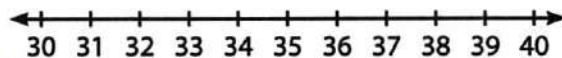
b  $46 - 4 =$  .....



c  $14 - 5 =$  .....

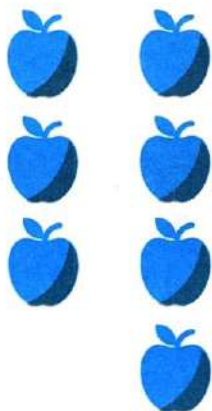


d  $32 + 6 =$  .....



## 3 Circle the pairs of each object, then count and underline even or odd:

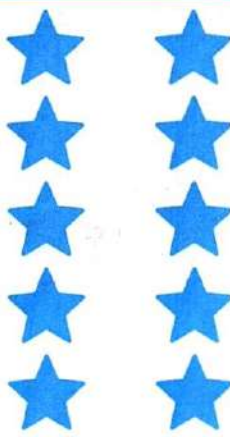
a



even

odd

b



even

odd

c



even

odd

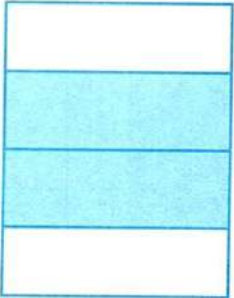
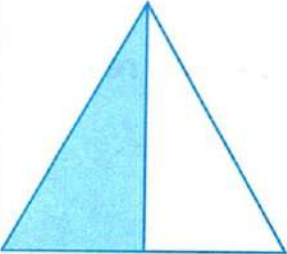

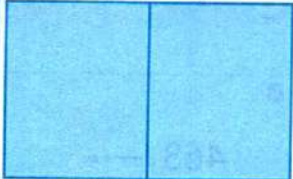
**4** Use front-end strategy to estimate, then find the actual result:

a	Actual	Front-end
	$\begin{array}{r} 54 \\ + 26 \\ \hline \end{array}$	$\begin{array}{r} \dots\dots\dots \\ + \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$
	$\begin{array}{r} 94 \\ - 25 \\ \hline \end{array}$	$\begin{array}{r} \dots\dots\dots \\ - \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$
	$\begin{array}{r} 206 \\ + 493 \\ \hline \end{array}$	$\begin{array}{r} \dots\dots\dots \\ + \dots\dots\dots \\ \hline \dots\dots\dots \end{array}$

**5** Write the fact family of each of the following numbers:

a	b	c	d
8, 10, 18	20, 5, 15	8, 17, 9	19, 6, 13
..... + ..... = .....	..... + ..... = .....	..... + ..... = .....	..... + ..... = .....
..... + ..... = .....	..... + ..... = .....	..... + ..... = .....	..... + ..... = .....
..... - ..... = .....	..... - ..... = .....	..... - ..... = .....	..... - ..... = .....
..... - ..... = .....	..... - ..... = .....	..... - ..... = .....	..... - ..... = .....

**6** Notice the shaded part, then write the fraction that represents each shape:

a	b	c	d
			
..... .....	..... .....	..... .....	..... .....



# Worksheet 2

1 Make a combination of banknotes to get the price of each object:

a

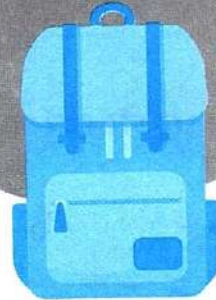
L.E. 255



L.E. .... + L.E. .... + L.E. ....  
+ L.E. .... + L.E. .... + L.E. ....

b

L.E. 83



L.E. .... + L.E. .... + L.E. ....  
+ L.E. .... + L.E. .... + L.E. ....

2 Complete the pattern and write its rule:

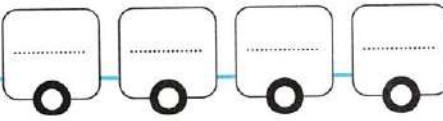
a

13

15

17

19



Rule

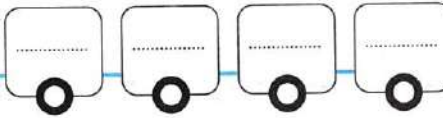
b

35

30

25

20



Rule

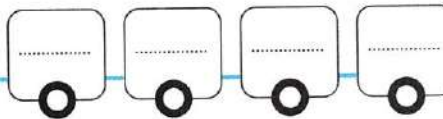
c

40

50

45

55



Rule

3 Round to estimate, then find the actual result:

a

463 →

- 258 →

b

125 →

- 80 →

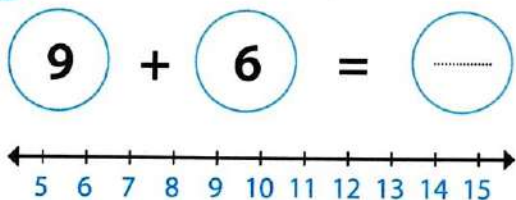
c

640 →

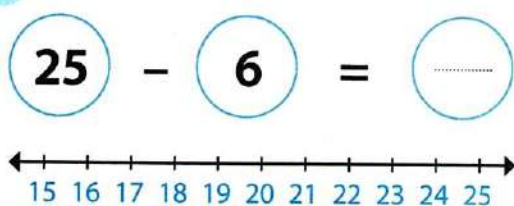
+ 309 →

#### 4 Subtract or add using the number line:

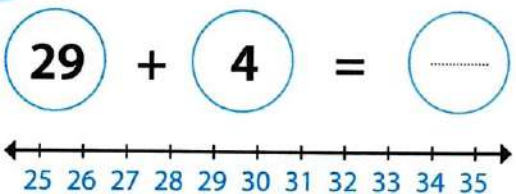
a



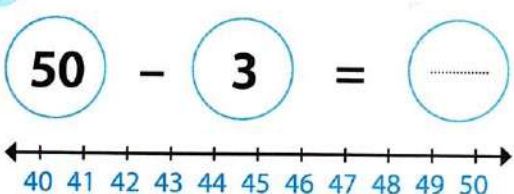
b



c

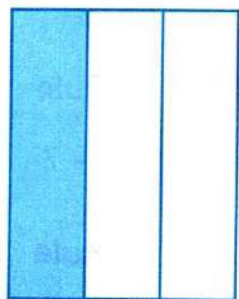


d



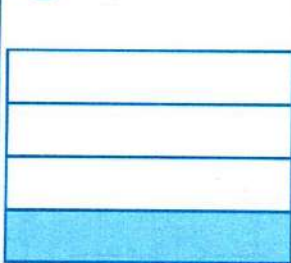
#### 5 Write the name of each fraction that represents the shaded parts:

a



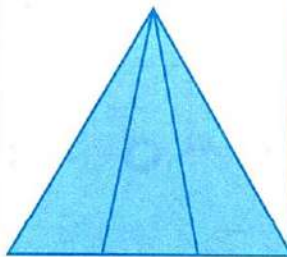
Read as: .....

b



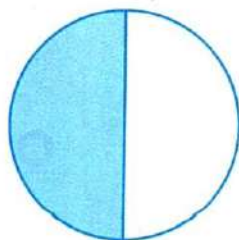
Read as: .....

c



Read as: .....

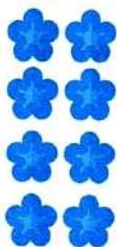
d



Read as: .....

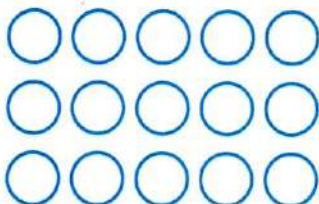
#### 6 Complete, then write the name of each of the following arrays:

a



..... rows  
..... columns  
..... by .....

b



..... rows  
..... columns  
..... by .....

c




..... rows  
..... columns  
..... by .....



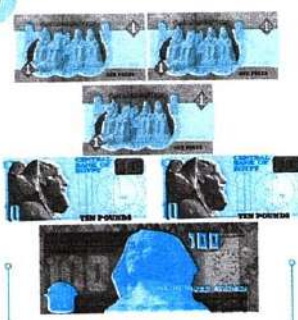
**1** Write the total sum of each amount of money:

**a**




L.E. ....

**b**



L.E. ....

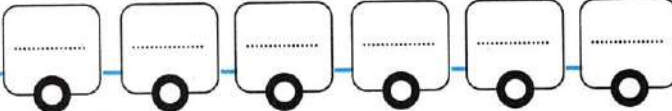
**c**



L.E. ....

**2** Complete the pattern using the given rule:

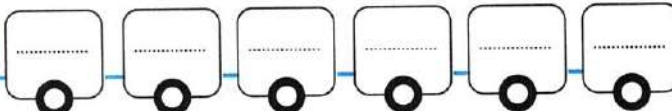
**a** 17



Rule

$+3, -1$


**b** 54



Rule

$-7$

**c** 62



Rule

$+2, -5$

**3** Round to the nearest tens or hundreds:

**a** 204 is closer to

**b** 190 is closer to

**c** 58 is closer to

**d** 386 is closer to

**e** 670 is closer to

**f** 45 is closer to

**4 Read, think, then solve:**

**a** A baker made 79 cupcakes. He sold 46 of them. **How many cupcakes are left?**

.....




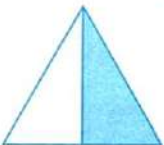
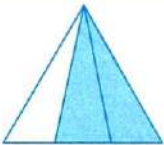

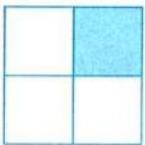

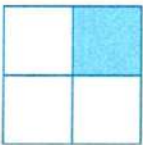
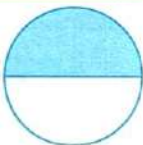
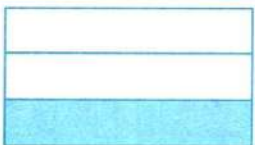
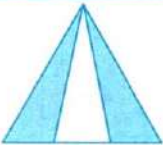
.....

**b** Mona had L.E. 156, then her mother gave her L.E. 25 more. **How much money with Mona now?**

.....

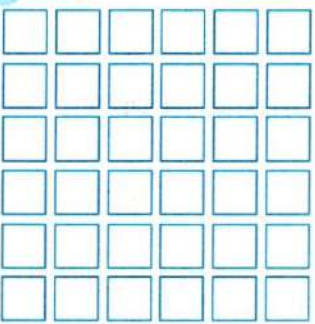
.....

**5 Circle the shapes that show the fraction in each row:**

<b>a</b> $\frac{1}{2}$				
<b>b</b> $\frac{3}{4}$				
<b>c</b> $\frac{1}{4}$				

**6 Color to create the array according to its name, then complete:**

**a**

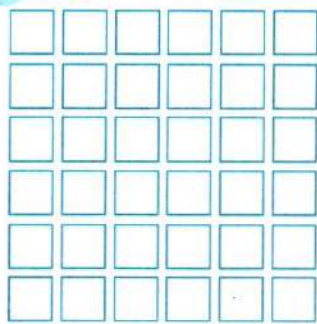


**5 by 3**

Rows: ..... columns: .....

Addition sentence = .....

**b**

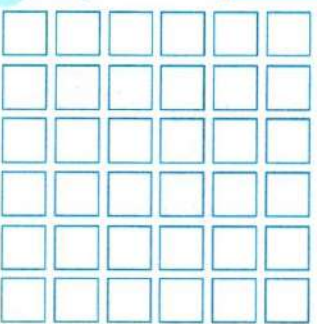


**2 by 4**

Rows: ..... columns: .....

Addition sentence = .....

**c**



**6 by 1**

Rows: ..... columns: .....

Addition sentence = .....



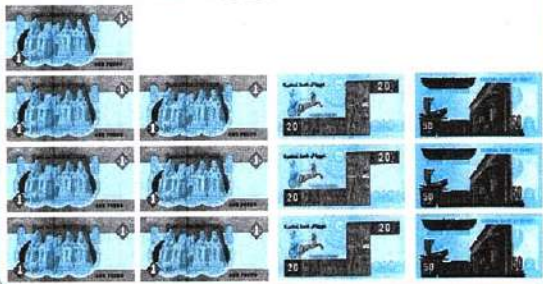
# Worksheet 4

1 Circle the group of banknotes that can be used to buy each object:

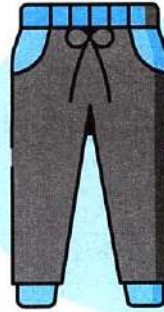
a



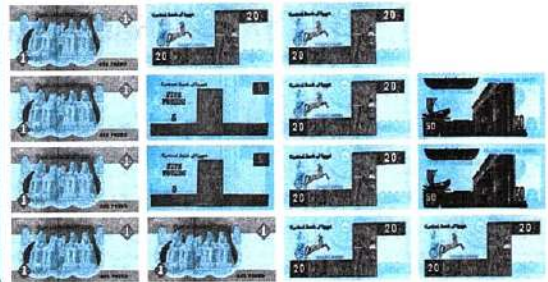
L.E. 125



b



L.E. 208



2 Add:

	H	T	O
	4	2	7
+	2	8	5

	H	T	O
	1	4	6
+		7	8

	H	T	O
	3	0	6
+	4	8	7

3 Color the even numbers in red and the odd numbers in blue:

75	126	42	87
13	28	69	316
100	81	207	164

#### 4 Solve each cluster problem:

a

$64 - 10 = \underline{\hspace{2cm}}$

$64 - 20 = \underline{\hspace{2cm}}$

$64 - 30 = \underline{\hspace{2cm}}$

$64 - 34 = \underline{\hspace{2cm}}$

Then

$64 - 36 = \underline{\hspace{2cm}}$

b

$372 - 100 = \underline{\hspace{2cm}}$

$372 - 120 = \underline{\hspace{2cm}}$

$372 - 150 = \underline{\hspace{2cm}}$

$472 - 152 = \underline{\hspace{2cm}}$

Then

$472 - 159 = \underline{\hspace{2cm}}$

c

$95 - 10 = \underline{\hspace{2cm}}$

$95 - 20 = \underline{\hspace{2cm}}$

$95 - 30 = \underline{\hspace{2cm}}$

$95 - 35 = \underline{\hspace{2cm}}$

Then

$95 - 37 = \underline{\hspace{2cm}}$

#### 5 Match the fraction of colored objects:

a



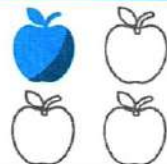
$\frac{4}{4}$

b



$\frac{1}{4}$

c



$\frac{2}{3}$

#### 6 Read, think, then solve:

- a Ali has 438 marbles. He gave his sister 160 marbles. **How many marbles are left with Ali?**

.....

.....

- b Salah saw 63 birds on the tree. If 56 more birds joined them, **how many birds were there on the tree?**

.....

.....



**1** Circle the object you can buy according to the money you have:



L.E.165



L.E.190



L.E.110



L.E.90

**2** Decompose each of the following numbers using 2 ways:

**a** 57

First way:

..... + .....

Second way:

..... + .....

**b** 93

..... + .....

..... + .....

**c** 78

..... + .....

..... + .....

**3** Round each of the following to the nearest tens or hundreds:

**a**

48

is  
closer  
to

.....

**b**

123

is  
closer  
to

.....

**c**

83

is  
closer  
to

.....

**d**

517

is  
closer  
to

.....

**e**

251

is  
closer  
to

.....

**f**

369

is  
closer  
to

.....

**4** Find the missing numbers to complete each of the following fact families:

**a**

18

13

$$18 - 13 = \boxed{\phantom{000}}$$

$$\boxed{\phantom{000}} + 13 = 18$$

$$13 + \boxed{\phantom{000}} = 18$$

$$18 - \boxed{\phantom{000}} = 13$$

**b**

6

11

$$11 - \boxed{\phantom{000}} = 6$$

$$\boxed{\phantom{000}} + 6 = 11$$

$$11 - 6 = \boxed{\phantom{000}}$$

$$6 + \boxed{\phantom{000}} = 11$$

**5** Build the fraction in each of the following:

**a** A fraction, its numerator is 2 and its denominator is 3



**b** A fraction, its numerator is 1 and its denominator is 3



**c** A fraction, its numerator is 3 and its denominator is 4



**6** Solve each of the following:

**a**

$$175 + 356 =$$

**b**

$$805 - 265 =$$

**c**

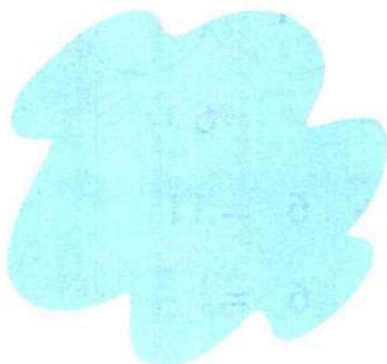
$$68 - 49 =$$

**d**

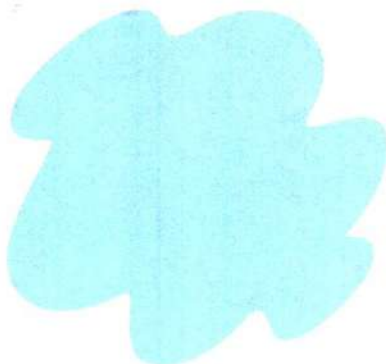
$$89 + 76 =$$



**1** Draw the units of banknote to create the total amount:



L.E. 28



L.E. 200



L.E. 125

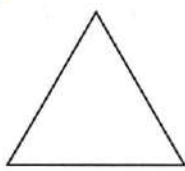
**2** Divide, then color the following shapes to represent the given fractions:

**a**



$\frac{1}{3}$

**b**



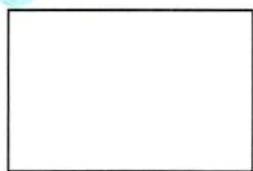
$\frac{1}{2}$

**c**



$\frac{2}{4}$

**d**



$\frac{2}{3}$

**3** Add, then circle the correct word (even or odd):

**a**

$$5 + 5 = \dots\dots\dots$$

even

odd

**b**

$$6 + 3 = \dots\dots\dots$$

even

odd

**c**

$$8 + 9 = \dots\dots\dots$$

even

odd

**d**

$$11 + 7 = \dots\dots\dots$$

even

odd

**e**

$$7 + 2 = \dots\dots\dots$$

even

odd

**f**

$$12 + 4 = \dots\dots\dots$$

even

odd

**g**

$$30 + 20 = \dots\dots\dots$$

even

odd

**h**

$$15 + 12 = \dots\dots\dots$$

even

odd

#### 4 Add and subtract using the number line:

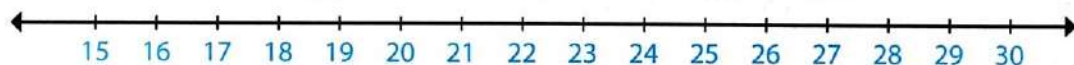
a

17

+

7

=



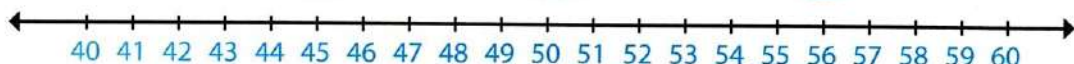
b

60

-

15

=



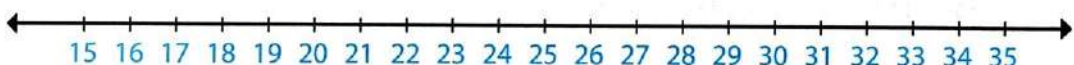
c

20

+

13

=



#### 5 Decompose each of the following numbers using 2 ways:

a

66

b

32

c

54

First way:

 + 

Second way:

 + 
 + 
 + 
 + 
 + 

#### 6 Read, think, then solve:

- a Mariam collected 267 flowers and Noha collected 159 flowers.  
How many more flowers did Mariam collect than Noha?


- b Yara has 4 candies. She gave 3 candies to her sister Sara.  
What is the fraction of candies Yara has now?



# Worksheet 7

## 1 Read, think, then solve:

**a** Ramy has L.E. 32 and Yassmin has L.E. 56. **How much money do both of them have?**

.....

.....

**b** Walid has L.E. 426 and Karima has L.E. 373. **What is the difference between the amounts of money they both have?**

.....

.....

## 2 Match each pattern to its rule:

**a** 7, 9, 8, 10, 9, 11 and 10

+4, -2

**b** 4, 8, 6, 10, 8, 12 and 10

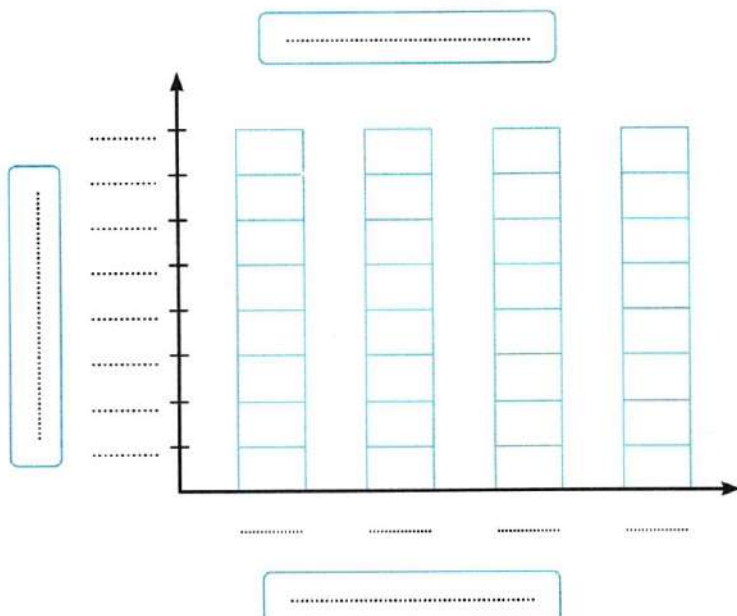
-2, +3

**c** 5, 3, 6, 4, 7, 5 and 8

+2, -1

## 3 Use the given data which represents the favourite fruit for some children to form the following bar graph:

Type of fruit	Number of children
Apples	8
Grapes	10
Bananas	8
Kiwi	12



**4 Complete by decomposing numbers:**

**a**

$$94 = 90 + \dots$$

$$94 = \dots + 50$$

$$94 = 20 + \dots$$

**b**

$$\dots + 14 = 34$$

$$\dots + 10 = 34$$

$$\dots + 30 = 34$$

**c**

$$65 = \dots + 15$$

$$65 = 30 + \dots$$

$$65 = 40 + \dots$$

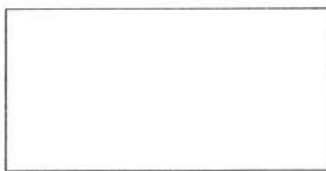
**5 Draw lines to divide each rectangle, then color to represent the given fractions:**

**a**



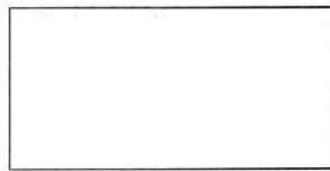
Two fourths

**b**



Four fourths

**c**



Three fourths

**6 Complete:**

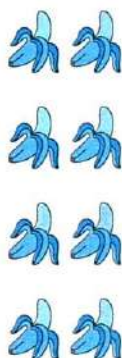
**a**



..... rows ..... columns

Number of balls = .....

**b**



..... rows ..... columns

Number of bananas = .....

**c**



..... rows ..... columns

Number of pencils = .....



**1** Solve the following problem using the place value/money mat:

$$\text{L.E. } 453 + \text{L.E. } 242$$

Hundreds L.E.100	Tens L.E.10	Ones L.E.1
.....	.....	.....


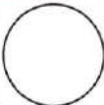
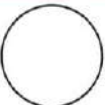
+

Hundreds L.E.100	Tens L.E.10	Ones L.E.1
.....	.....	.....

=

Hundreds L.E.100	Tens L.E.10	Ones L.E.1
.....	.....	.....

**2** Complete the pattern:

**a**  ,  , ....., ....., ....., .....

**b** aa , bb , cc , ....., ....., ....., .....

**c** 80 , 70 , 60 , ....., ....., ....., .....

**3** Round each number to the nearest hundred, then find the actual result:

**a**

$$\begin{array}{r} 280 \\ - 125 \end{array} \rightarrow \begin{array}{r} \phantom{000} \\ - \phantom{000} \end{array}$$

.....

**b**

$$\begin{array}{r} 375 \\ - 208 \end{array} \rightarrow \begin{array}{r} \phantom{000} \\ - \phantom{000} \end{array}$$

.....

**c**

$$\begin{array}{r} 465 \\ + 383 \end{array} \rightarrow \begin{array}{r} \phantom{000} \\ + \phantom{000} \end{array}$$

.....

**4** Notice, then answer the questions:



**a** What is the fraction of colored balloons?

**b** What is the fraction of uncolored balloons?

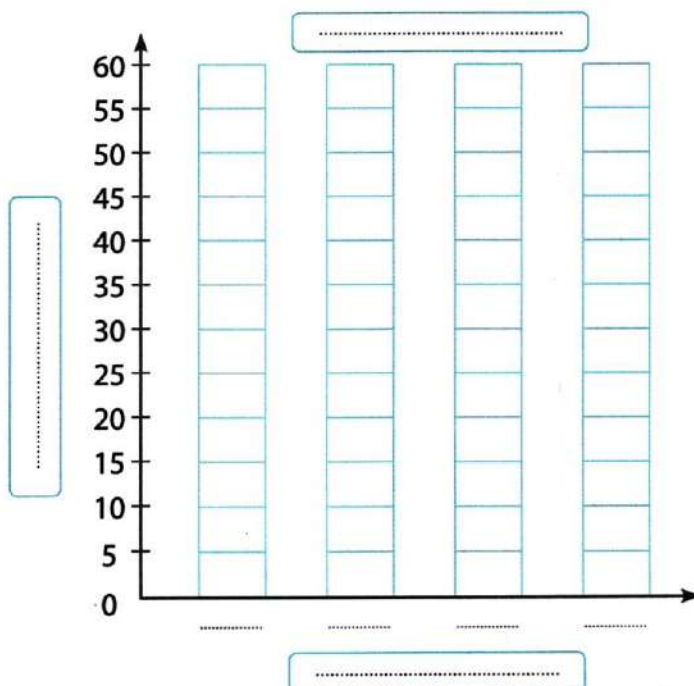
**5** Read, think, then solve:

**a** Noha has 618 pounds and Sara has 230 pounds. **What is the difference between their amounts?**

**b** Nora had 4 candies. She gave her sister one candy. **What is the fraction that represents the left candies with Nora?**

**6** Use the data in the table to complete the bar graph:

Favorite animals	
Animals	Number of children
Lion	25
Giraffe	30
Elephant	45
Zebra	15





# Worksheet 9

1 Solve the following subtraction problems using the place value money mat:

$$\text{L.E. } 78 - \text{L.E. } 36 = \text{L.E. } \dots\dots\dots$$

Tens L.E. 10	Ones L.E. 1

=

Tens L.E. 10	Ones L.E. 1

2 Round to estimate the difference, then match:

a  $91 - 72$

10

b  $66 - 39$

20

c  $76 - 68$

30

3 Use the given data to form a pictograph:

red	
blue	
purple	
pink	

Key: .....

Favorite color	
Color	Number of children
red	20
blue	35
purple	50
pink	60

**4** Decompose each number in 2 different ways:

**a** **38**

$38 = \dots + \dots$

$38 = \dots + \dots$

**b** **96**

$96 = \dots + \dots$

$96 = \dots + \dots$

**c** **17**

$17 = \dots + \dots$

$17 = \dots + \dots$

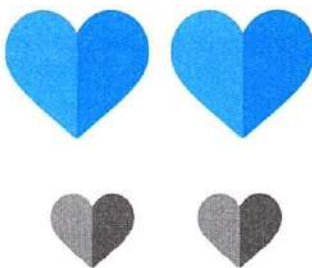
**d** **54**

$54 = \dots + \dots$

$54 = \dots + \dots$

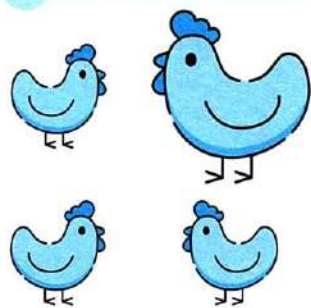
**5** Write the fraction:

**a**



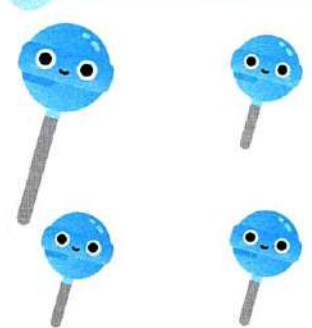
The fraction of big hearts =

**b**



The fraction of small hens =

**c**



The fraction of long lollipops =

**6** Read, think, then solve:

- a** Tamer has 519 pounds. Amgad has 340 pounds. **What is the difference between their amounts?**
- .....
- .....

- b** Rania baked 312 vanilla cookies and 91 chocolate cookies for her school party. **How many cookies did she bake in all?**
- .....
- .....



## 1 Read, think, then solve:

Mona has L.E. 330. She wants to buy a dress which costs L.E. 225.

How much money will remain with Mona?

---

---

---

---

---



## 2 Draw objects to make an array according to the given names:

<b>a</b>	<b>b</b>	<b>c</b>
<div style="border: 1px solid black; width: 250px; height: 250px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 250px; height: 250px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 250px; height: 250px; margin: 0 auto;"></div>
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">2 by 4</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">4 by 3</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">3 by 1</div>

## 3 Estimate and round, then write the actual sum or difference:

<b>a</b>	<b>b</b>	<b>c</b>
<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> <div> <math display="block">\begin{array}{r} 136 \\ + 463 \\ \hline \end{array}</math> </div> <div> <p>Front-end estimation</p> <hr/> <p>Rounding</p> <hr/> <p>Actual</p> <hr/> </div> </div> </div>	<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> <div> <math display="block">\begin{array}{r} 254 \\ - 78 \\ \hline \end{array}</math> </div> <div> <p>Front-end estimation</p> <hr/> <p>Rounding</p> <hr/> <p>Actual</p> <hr/> </div> </div> </div>	<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> <div> <math display="block">\begin{array}{r} 26 \\ + 67 \\ \hline \end{array}</math> </div> <div> <p>Front-end estimation</p> <hr/> <p>Rounding</p> <hr/> <p>Actual</p> <hr/> </div> </div> </div>



**4** Tick ✓ if the result is correct and tick ✗ if the result is incorrect:

**a** If you

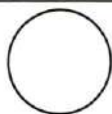


round to the nearest  
ten to estimate the  
sum

$$78 + 36$$

The result is

$$80 + 40 = 120$$



**b** If you

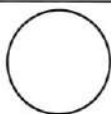


round to the nearest  
hundred to estimate  
the difference

$$326 - 204$$

The result is

$$300 - 200 = 100$$



**c** If you

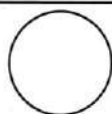


estimate using  
front-end  
estimation to add

$$184 + 59$$

The result is

$$180 + 60 = 230$$



**5** Build the fraction:

**a** A fraction, its numerator is 2 and its denominator is 4

is



**b** A fraction, its numerator is 3 and its denominator is 4

is



**c** A fraction, its denominator is 3 and its numerator is 2

is



**6** Add or subtract using any strategy you have learned:

**a**

$$580 - 269 =$$

.....

**b**

$$139 - 94 =$$

.....

**c**

$$87 + 6 =$$

.....

**d**

$$52 - 38 =$$

.....